

100 Formulations of Advance Cosmetics

VOLUME-1

A Research
Compilation by
FormuLab
Bangladesh



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FB-20250629-007 (MD KHAIRUL Alam Eshad)

100 Advance Cosmetic Formulation

(List For Part-1)

1. Mousturizing Peptide Cream (Anti Aging-1)
2. Moisturizing Peptide Cream (Anti-Aging-2)
3. Anti-Aging Face Cream For Dry Skin
4. Anti-Aging Face Cream For Normal Skin
5. Original Brightening Moisturizing Cream
6. Advance Brightening Moisturizing Cream
7. Advance Skin Brightening Tone Up Cream
8. Advance Brightening Face Serum
9. Exclusive Premium Anti-Aging Face Serum
10. Advance Calming Lavender Shower Gel-1
11. Advance Snail Collagen Face Wash With Vitamin E
12. Advance SP 50++ Sunscreen Cream
13. Nourishing Micellar Water
14. AHA/BHA Based Gentle Aloevera Foaming Face Wash
15. AHA/BHA Based Gentle Mixed Fruit Foaming Face Wash
16. Advance Skin Brightening Emulsion Cream
17. Advance Shampoo For Silky Shine Hair and Dandruff Treatment
18. Glowing Rose Water Toner
19. Silky Shine Smooth Hair Repair Shampoo
20. Advance Calming Lavender Shower Gel
21. Advance Calming Rose Shower Gel-2
22. AHA/BHA Based Rose Water Toner
23. Hair Oil (Type-3)

24. AHA/BHA Based Tea Tree Face Toner
25. Advance Daily Face Wash For Acne Control
26. Advance Daily Face Wash For Oil Control
27. Neem Daily Face Wash
28. Deep Hydrating Body Lotion
29. Advance Calming Aloevera Soothing Gel
30. Advance Green Herbs Soothing Gel
31. Facial Massage Cream
32. Advance Skin Brightening Emulsion Cream
33. Brightening Moisturizing Cream-1
34. Brightening Moisturizing Cream-2
35. Moisturizing Cream For Acne Fighting
36. Rose Lip Bulm
37. Sandalwood Face Mask
38. Sea Salt Body Scrub
39. Coffee Body Scrub
40. Premium Hair Removal Cream-1
41. Premium Hair Removal Cream-2
42. Dark Spot Tone Up Cream SPF 50+PA+++
43. Advance Melasma Treatment cream
44. Advance Multivitamin Functional Cream
45. Advance Herbal Shampoo For Silky Shine Hair
46. Neem Morning Face Wash
47. Tulsi Morning Face Wash
48. Mixed Fruit Daily Face Wash
49. Charcoal Daily Detoxifying Face Wash
50. Advance Deep Hydra Boost Brightening Body Lotion

Formulation-01

Advance Moisturizing Peptide Cream For Anti Aging -1

✓ Benefits / Claims of Anti-Aging Cream

1. **Reduces fine lines and wrinkles** – Helps smooth and rejuvenate aging skin.
2. **Boosts collagen production** – Enhances skin firmness and elasticity.
3. **Deeply moisturizes** – Hydrates and softens dry, dull skin.
4. **Brightens skin tone** – Reduces dark spots and evens out complexion.
5. **Provides antioxidant protection** – Fights premature aging caused by free radicals.
6. **Improves skin texture** – Refines rough or uneven skin surface.
7. **Soothes sensitive skin** – Calms irritation and redness.
8. **Lightweight & fast-absorbing** – Suitable for all skin types, non-greasy finish.

Name	%	Remark
Phase A		
Distilled Water	60	
Butylene Glycol	3	
Ethoxydiglycol	2	
Xanthan Gum	0.2	
Sodium Glycolate	0.2	
Phase B		
Caprylic Capric Triglyceride	6.5	
Cetearyl Alcohol, Ceteareth 20	3.5	
Rashpberry seed oil	4.5	
Cetyl Alcohol	2	
Shea Butter	1	
Phase C		
All-rac-Alpha Tocopheryl Acetate	0.5	

D-panthenol	0.5	
Palmitoyl peptide complex	2	
Phase D		
Distilled Water	10	
Hyaluronic Acid	1	
Glycerine	2	
Phase E		
Phenoxy Ethanol	1	
Cranberry Extract	1	
Total	100	

✓ Manufacturing Procedure

Batch Size: 100 kg (Scale proportions as needed)

Equipment Needed:

- Overhead stirrer
- Homogenizer (optional for better emulsion)
- Double jacketed heating vessel
- pH meter
- Clean & sanitized containers

◆ Phase A – Water Phase Preparation

1. **Add Distilled Water** (60%) into the main mixing vessel. Start stirring gently (200–300 rpm).
2. Slowly sprinkle **Xanthan Gum** (0.2%) into the water while mixing to avoid lump formation. Continue stirring until fully hydrated.
3. Add **Sodium Glycolate** (0.2%) and mix until dissolved.
4. Add **Butylene Glycol** (3%) and **Ethoxydiglycol** (2%) into the hydrated gel base. Stir to blend well.
5. Heat the mixture to **75–80°C** while stirring gently.

◆ Phase B – Oil Phase Preparation (Separate vessel)

1. In a separate vessel, add:
 - **/Capric Triglyceride** (6.5%)
 - **Cetearyl Alcohol & Ceteareth-20** (3.5%)
 - **Raspberry Seed Oil** (4.5%)
 - **Cetyl Alcohol** (2%)
 - **Shea Butter** (1%)
2. Heat this oil phase to **75–80°C** until all solids are melted and uniform.

◆ Phase A + B – Emulsification

1. When both Phase A & B reach ~75°C, slowly **add oil phase (B) into water phase (A)** while mixing at medium-high speed (500–800 rpm).
2. Homogenize for 3–5 minutes if smoother texture is required.
3. Continue gentle mixing and start **cooling down** the batch to **below 40°C**.

◆ Phase C – Active Addition

1. At ~40°C, add:
 - **Vitamin E Acetate (Tocopheryl Acetate)** – 0.5%
 - **D-Panthenol** – 0.5%
 - **Palmitoyl Peptide Complex** – 2%
2. Stir slowly to incorporate without foaming.

● ◆ Phase D – Hydration Booster Phase (Pre-mix separately)

1. In a small clean vessel, dissolve **Hyaluronic Acid** (1%) in **Distilled Water** (10%) and **Glycerine** (2%). Allow it to hydrate fully (wait 30–45 min or until clear).
2. Once hydrated, add this mix into the main batch while stirring gently.

◆ Phase E – Preservative & Botanical Extract

1. Add **Phenoxyethanol** (1%) and **Cranberry Extract** (1%) at room temperature (<35°C).
2. Mix well until homogeneous.

◆ Final Steps

1. Check and adjust **pH** (ideal: 5.0–5.5). Use **NaOH (diluted)** or **citric acid solution** if needed.
2. Mix thoroughly and allow the batch to settle for 1 hour.
3. Conduct stability and microbial tests if applicable.
4. Fill into clean, airless jars or tubes. Seal and label.

✓ QC Checklist:

QC Parameter	Specification / Limit	Test Method	Remarks
Appearance	Smooth, creamy, off-white to light beige	Visual Inspection	No clumps, separation, or discoloration
Odor	Mild, characteristic, pleasant	Organoleptic	No rancidity or sharp chemical odor

QC Parameter	Specification / Limit	Test Method	Remarks
pH (5% in water)	5.0 – 6.0	pH meter	Suitable for facial skin
Viscosity	30,000 – 70,000 cP	Brookfield Viscometer	Should be stable and easy to apply
Stability Test	No change in appearance/pH/odor/viscosity after 1/3/6 months	Stability Chamber	Test at RT, 40°C, 45°C
Microbial Limit	TVC < 100 CFU/g; No E. coli, P. aeruginosa, S. aureus, Candida	ISO 21149, 16212	Required for safe topical use
Preservative Efficacy	Must pass PET (Preservative Efficacy Test)	ISO 11930	Especially due to botanical extracts
Packaging Integrity	No leakage, reaction, or deformation	Accelerated Compatibility Test	Tube/jar/pump packaging tested with product
Net Weight Accuracy	±5% of declared content	Digital Weighing	Batch packaging validation
Label Accuracy	All required info properly displayed	Manual review	Ingredient list, usage, warning, expiry etc.

 Regulatory Guideline:

Target Market: Bangladesh, ASEAN, South Asia (EU-compliant structure)

 1. Ingredient Safety & Compliance

- All ingredients follow international cosmetic safety guidelines (EU, ASEAN, BD standards).
- Preservatives (**Phenoxyethanol 1%**), **Ethylhexylglycerin (if used)** are within permitted limits.
- Active ingredients like **Palmitoyl Peptides, Hyaluronic Acid, Cranberry Extract** are globally approved.

 2. Claims Substantiation (as per INCI Data)

- **Anti-aging & Firmness** – Backed by Palmitoyl peptide & Collagen boosters.
- **Moisturizing** – Butylene Glycol, Glycerin, and Hyaluronic Acid.
- **Brightening & Antioxidant** – Cranberry Extract, Vitamin E (Tocopheryl acetate).
- **Soothing** – Shea Butter and Panthenol.

- ✓ All functional claims should be supported with **supplier data** or **clinical trial references**.

3. Packaging & Labeling Requirements

Label must include:

- Product Name & Function
- Net Quantity
- Full Ingredient List (INCI name order)
- Manufacturer/Brand Name & Address
- Batch No. & Expiry Date
- Instructions for Use
- Warnings/Caution (e.g., external use only, patch test recommended)

5. Documentation You Should Maintain

Document Name	Purpose
SDS / MSDS	Safety Data for each raw material
COA (Certificate of Analysis)	From supplier for actives & preservatives
PIF (Product Information File)	Includes formulation, QC, claims, safety
Batch Manufacturing Record (BMR)	For traceability and recall management
Stability Test Report	For shelf life confirmation

6. Packaging Recommendation

- **Airless pump** or **opaque jar** to protect peptides and antioxidants.
- Primary packaging must be:
 - **Non-reactive**
 - **Leak-proof**
 - **UV-resistant** (if exposed)

Formulation-2

Advance Moisturizing Peptide Cream For Anti Aging-2

✓ Benefits / Claims of Anti-Aging Cream

1. **Reduces fine lines and wrinkles** – Helps smooth and rejuvenate aging skin.
2. **Boosts collagen production** – Enhances skin firmness and elasticity.
3. **Deeply moisturizes** – Hydrates and softens dry, dull skin.
4. **Brightens skin tone** – Reduces dark spots and evens out complexion.
5. **Provides antioxidant protection** – Fights premature aging caused by free radicals.
6. **Improves skin texture** – Refines rough or uneven skin surface.
7. **Soothes sensitive skin** – Calms irritation and redness.
8. **Lightweight & fast-absorbing** – Suitable for all skin types, non-greasy finish.

Name	%	Remark
Phase A		
Distilled Water	60	
Butylene Glycol	3	
Ethoxydiglycol	2	
Xanthan Gum	0.2	
Sodium Glycolate	0.2	
Phase B		
Caprylic Capric Triglyceride	6	
Ginol 6820 (Emulsifying wax)	3.5	
Rashpberry seed oil	4	
Cetyl Alcohol	2	
All-rac-alpha-Tocopherol	0.5	
Shea Butter	1	
Phase C		
Palmitoyl peptide complex	2	
Hydrolised Colllagen	1	
Phase D		
Distilled Water	10	
Glycerine	2	
Sodium Hyaluronate	1	
Phase E		

Ethyl Hexyl Glycerine	0.5	
PhenoxyEthanol	1	
Cranberry Extract	1	
D-panthenol	0.5	

✓ Manufacturing Procedure

Equipment Needed:

- Stainless steel mixing vessel with anchor stirrer & homogenizer
- Water bath/heating system
- Overhead stirrer
- pH meter
- Thermometer
- Digital balance
- Beaker, spatula, dropper, etc.

Step-by-Step Manufacturing Process:

◆ *Step 1: Phase A – Aqueous Phase Preparation*

1. Into a clean main vessel, add **Distilled Water (60%)**.
2. Start mixing at 500–600 rpm using an anchor stirrer.
3. Add **Butylene Glycol (3%)** and **Ethoxydiglycol (2%)** under continuous stirring.
4. Slowly sprinkle **Xanthan Gum (0.2%)** while stirring to avoid lump formation.
5. Add **Sodium Glycolate (0.2%)** and continue mixing.
6. Heat the mixture to **75–80°C** and maintain temperature.

◆ *Step 2: Phase B – Oil Phase Preparation*

1. In a separate vessel, combine:
 - **Caprylic/Capric Triglyceride (6%)**
 - **Raspberry Seed Oil (4%)**
 - **Shea Butter (1%)**
 - **Cetyl Alcohol (2%)**
 - **Ginol 6820 / Emulsifying Wax (3.5%)**

Heat the oil phase to **75–80°C**, ensuring complete melting and uniformity.

◆ *Step 3: Emulsification*

1. Once both **Phase A** and **Phase B** are at 75–80°C, **slowly add the oil phase (B) into the aqueous phase (A)** under continuous stirring.

2. Homogenize the mixture at 3000–
3. 3000–4000 rpm for 3–5 minutes for fine emulsion.
4. Switch to anchor stirrer and mix gently for 10–15 minutes while allowing the emulsion to cool down to 40°C.

◆ **Step 4: Phase C – Peptide & Collagen Addition**

5. When the batch cools to below 40°C, add:
Palmitoyl Peptide Complex (2%)
Hydrolyzed Collagen (1%)
All-rac Aloha Tocopheryl Acetate
D-Panthenol
Stir well until completely dispersed.

◆ **Step 5: Phase D – Hyaluronic Gel Preparation**

6. In a separate small beaker, prepare:
Distilled Water (10%)
Glycerine (2%)
Sodium Hyaluronate (1%)
7. Mix slowly until a uniform gel forms. Then add this gel into the main batch under slow stirring.

◆ **Step 6: Phase E – Cooling & Final Additions**

8. At <35°C, add:
Phenoxyethanol (1%)
Ethylhexylglycerin (0.5%)
Cranberry Extract (1%)
9. Mix gently for 10–15 minutes until fully incorporated.

Final Adjustments & Finishing:

10. Check the pH and adjust to 5.0–5.5 if needed (using citric acid or sodium hydroxide solution).
11. Allow the cream to rest and cool completely.
12. Perform stability and microbial tests as per standard protocol.
13. Fill into airless jars or tubes in a clean and sterile environment.



QC Checklist for Moisturizing Peptide Cream

QC Parameter	Specification/Limit	Test Method	Remarks
Appearance	Smooth, off-white cream	Visual Inspection	No phase separation or grittiness
Odor	Characteristic, pleasant, mild	Sensory	No foul or rancid smell
pH (5% solution)	5.0 – 6.0	pH meter	Skin-friendly, non-irritating
Viscosity	30,000 – 80,000 cP (Brookfield, Spindle #6, 10 rpm)	Brookfield Viscometer	Consistent and stable texture
Stability (RT/45°C)	No color/odor change or phase separation	Stability Chamber	1, 3, 6 months accelerated testing
Microbial Load	<100 CFU/g (TVC); No Pathogens	Microbial Testing	ISO 21149, 16212, 18416
Preservative Efficacy	Should pass PET (Challenge Test)	ISO 11930	Mandatory for long shelf life
Heavy Metals	Within regulatory limits	ICP-MS or AAS	Especially Lead, Arsenic, Mercury
Packaging Compatibility	No interaction/leakage	Visual + Physical Testing	Store at 25°C and 40°C for testing
Label Accuracy	All ingredients, batch, expiry, usage mentioned	Label Review	As per regulatory guidelines



Regulatory Guideline (Smart Format)

Target Market: Bangladesh / ASEAN / EU compliant base.

1. Ingredient Safety

- All ingredients are permitted under **EU Cosmetic Regulation (EC) No. 1223/2009**.
- Preservatives like **Phenoxyethanol (1%)** and **Ethylhexylglycerin (0.5%)** are within allowed limits.
- No banned or restricted substances used.

2. Claims & Claims Substantiation

- Claims like "moisturizing", "anti-aging", "peptide-enriched", and "collagen-boosting" must be backed by **active material supplier data** or **instrumental tests**.
- Avoid unproven claims like “permanent whitening” or “miracle cure”.

3. Labeling Requirements

- Product Name
- Net Content
- Ingredient List (INCI format)
- Manufacturer/Brand Info
- Batch No. & Expiry Date
- Usage Direction
- Caution/Warranty if applicable

4. Safety and Compliance

- Conduct **Safety Assessment** by a qualified cosmetic chemist.
- Prepare **PIF (Product Information File)** and **MSDS/SDS** for each ingredient.
- Follow **Good Manufacturing Practice (GMP)** – ISO 22716 or equivalent.

5. Packaging

- Use **airless pump jar** or **opaque tubes** to ensure stability of peptides, collagen & antioxidants.
- Ensure packaging is leak-proof, non-reactive, and UV resistant.

Key Notes:

14. Ensure all ingredients are weighed accurately.
15. Maintain hygiene and GMP conditions throughout production.
16. Always Add heat-sensitive and active ingredients below 40°C.

Formulation-3

Anti Aging Face Cream for Dry Skin

Benefits / Claims of Anti-Aging Face Cream (for Dry Skin)

1. **Reduces wrinkles & fine lines** – Peptides and snail filtrate help smooth signs of aging.
2. **Deeply hydrates dry skin** – Hyaluronic acid, squalane, and glycerin lock in moisture.
3. **Boosts collagen & elasticity** – Peptides and wheat protein firm and tone the skin.
4. **Repairs & regenerates skin** – Snail filtrate supports healing and renewal.
5. **Strengthens skin barrier** – Prebiotics protect and balance dry, sensitive skin.

6. **Nourishes with botanical oils** – Argan, grapeseed, and poppy seed oils soften and revitalize.
7. **Soothes irritation** – Rosemary extract and shea butter calm and protect the skin.
8. **Provides antioxidant defense** – Vitamin E and essential oils fight free radicals.
9. **Improves texture & glow** – Leaves skin smooth, radiant, and youthful.
10. **Non-greasy, skin-friendly** – Fast-absorbing and suitable for dry, mature skin.

Product Tagline: "Revive. Repair. Rejuvenate – With Every Drop."

Name	%	Remark
Phase A		
Distilled Water	55	
1,3-propanediol	2	
Sodium Gluconate	0.2	
Phase B		
Squalane	5	
Argan Oil	4	
Isoamyl Laurate	2	
Grapseed Oil	1	
Shea butter	1	
Poppy Seed Oil	1	
Ginol-6820 (Emulsifying Wax)	4	
Cetyl Alcohol	2	
Phase C		
Snail Secretion Filtrate or slime snail	4	
Prebiotic	2	

Phase D		
Distilled water	8	
Glycerine	3	
Hyaluronic Acid	1	
Phase E		
Palmitoyl Peptide Complex	1	
Wheat Protein	1	
All -rac -Alpha Tocopheryl Acetate	1	
Phase F		
Rosemarry Extract	0.5	
Essential Oil	0.4	
Ethyl Hexyl Glycerine	0.1	
Phenoxyethanol	0.2	

Manufacturing Procedure :

General Conditions:

- **Batch Size:** As required (scale accordingly)
- **Equipment Required:**
 - Stainless steel jacketed vessel with anchor stirrer
 - Overhead homogenizer
 - Water bath (for heating phases)
 - pH meter, thermometer
 - GMP-compliant clean room setup

Phase A – Aqueous Phase Preparation

1. In the main vessel, add **Distilled Water (55%)** and start stirring at 500–700 rpm.
2. Slowly add **Glycerine (3%)**, then **1,3-Propanediol (2%)** under moderate stirring.
3. Add **Sodium Gluconate (0.2%)** to the aqueous mixture.
4. Heat Phase A to **75–80°C** while stirring continuously. Maintain temperature.

◆ Phase B – Oil Phase Preparation

1. In a separate vessel, combine:
 - **Squalane (5%)**
 - **Argan Oil (4%)**
 - **Isoamyl Laurate (2%)**
 - **Grapeseed Oil (1%)**
 - **Shea Butter (1%)**
 - **Poppy Seed Oil (1%)**
 - **Ginol-6820 (4%) – Emulsifying Wax**
 - **Cetyl Alcohol (2%)**
2. Heat the oil phase to **75–80°C** until all components are completely melted and homogenous.

◆ Emulsification – Combining Phase A & B

1. Once both Phase A and B reach the same temperature (~78°C), **slowly add Phase B into Phase A** under continuous stirring at 800–1000 rpm.
2. Begin **homogenizing** the mixture at **4000–6000 rpm** for 5–10 minutes to form a stable emulsion.
3. After homogenization, reduce the mixing speed to 500 rpm and begin cooling the emulsion gradually to **40°C**.

◆ Phase C – Functional Actives Addition

1. At around 40°C, add **Snail Secretion Filtrate (4%)** and **Prebiotic (2%)** to the emulsion.
2. Stir gently for 5–7 minutes to ensure uniform dispersion.

◆ Phase D – Hydration Complex Preparation (Premix)

1. In a small side vessel, premix:
 - **Distilled Water (8%)**
 - **Glycerine (3%)**
 - **Hyaluronic Acid (1%)**
2. Stir until fully hydrated (Hyaluronic Acid may need pre-soaking or slow mixing to avoid clumping).
3. Add this premix to the main batch and mix at low speed (~300–400 rpm).

◆ Phase E – Peptides & Sensitive Ingredients

1. Once temperature is below **35°C**, add:
 - **Palmitoyl Peptide Complex (1%)**
 - **Wheat Protein (1%)**
 - **All-rac-Alpha Tocopheryl Acetate (1%)**
2. Stir slowly to avoid destabilizing the emulsion. Use gentle stirring for 5 minutes.

◆ Phase F – Preservative & Fragrance System

- Add the following one by one under gentle stirring:
 - **Rosemary Extract (0.5%)**
 - **Essential Oil (0.4%)** (*adjust fragrance strength as desired*)
 - **Ethylhexylglycerin (0.1%)**
 - **Phenoxyethanol (0.2%)**
- Continue mixing until all components are fully incorporated.

🔧 Final Steps:

- Check and adjust pH to 5.0–5.5**, suitable for sensitive skin. Use Citric Acid or Sodium Hydroxide solution if needed.
- Conduct **final mixing** for 10 minutes at 300–400 rpm.
- Allow the product to **rest for deaeration** for 2–4 hours or apply vacuum if available.
- Perform **QC tests**: viscosity, pH, stability, microbial check.
- Fill into pre-sterilized containers under hygienic conditions.

3. 🧪 QC Checklist Table

✓ Raw Material QC

Parameter	Specification	Test Method
pH of aqueous ingredients	5.5 – 6.5	pH Meter
Microbial load (TAMC & TYMC)	Must comply with ISO 17516	Plate Count Method
Appearance & Odor	Clear, no turbidity, no bad odor	Visual + Organoleptic
Snail Secretion authenticity	Cosmetic-grade, no contamination	COA + Supplier Validation
Emulsifying Wax & Cetyl Alcohol	Melting point 50–55°C	Melting point check

✓ In-Process QC

Parameter	Specification	Test Method
Emulsion Stability	No separation during & after mixing	Visual Observation
Homogeneity	Uniform texture, no clumping	Manual Spatula Test
Emulsification Temp.	Maintain 70–75°C during Phase A + B blending	Digital Thermometer
Active Addition Temp.	Below 45°C during Phase C–F additions	Thermometer
pH (during production)	5.2 – 6.2	pH Meter
Viscosity	15,000 – 30,000 cps (as required)	Brookfield Viscometer
Microbial Test (during prod.)	<100 CFU/g	Swab & Plating Method

Parameter	Specification	Test Method
Batch Coding	Proper traceable batch ID on every container	Manual + Software Entry

✓ **Finished Product QC**

Parameter	Specification	Test Method
Appearance	Smooth, uniform cream, no bubbles or layering	Visual
Color & Odor	As per formulation standard, pleasant natural	Organoleptic
pH	Final 5.2 – 6.2	pH Meter
Packaging Quality	No leakage, proper sealing, clean labeling	Manual Inspection
Fill Volume	As per label claim (±5%)	Weighing Scale
Microbial Load (TAMC/TYMC)	Complies with ISO 17516 (<1000 CFU/g)	Microbial Lab Test
Stability Test	No phase separation after 30/60/90 days	Accelerated Stability Test
Storage Compatibility	Maintains quality at 4°C, 25°C, 40°C	Stability Chamber

Packaging QC: No air pockets, proper fill volume, clean labeling

 Regulatory Guidelines (Based on EU, ASEAN & BD Standards)

✓ **Labeling Compliance:**

- INCI names must be used in ingredient list
- Mention **net weight, batch number, Mfg & Exp Date**
- **“For external use only”** disclaimer
- **Made in Bangladesh by Formulab Bangladesh**

✓ **Claims Regulation:**

- Avoid medical claims like "cures eczema", "heals wounds"
- Safe claims: “hydrates deeply”, “improves skin texture”, “enhances skin barrier”

✓ **Preservative Regulation:**

- **Phenoxyethanol (0.2%)** within safe limit (max 1% EU allowed)
- **Ethylhexylglycerin** is a safe preservative booster

✓ Safety & Testing:

- Patch test recommendation must be mentioned
- Ideally conduct **HRIPT** (Human Repeat Insult Patch Test) or at least 48h patch test for safety validation
- Microbiological testing as per ISO 21149 & 16212
- Stability test (40°C, 25°C, 4°C for 3 months minimum)

✓ Notes:

- Ensure **ingredients like peptides and HA** are always added below 40°C to preserve efficacy.
- Maintain **GMP standards** and use **preservative challenge tests** if product is to be commercialized.

Formulation - 4

Anti Aging Face Cream For normal Skin

✓ Benefits / Claims of Anti-Aging Face Cream (for Normal Skin)

1. **Reduces signs of aging** – Retinyl palmitate and wheat protein help minimize fine lines and wrinkles.
2. **Improves skin firmness & elasticity** – Ceramide complex and peptides support a youthful skin structure.
3. **Boosts collagen & cell renewal** – Vitamin E, panthenol, and green tea extract promote skin regeneration.
4. **Nourishes & protects** – Marula oil, meadowfoam oil, and squalane deliver deep nourishment and antioxidant defense.
5. **Hydrates and smoothens** – Glycerin, pentylene glycol, and shea butter maintain optimal moisture balance.
6. **Strengthens skin barrier** – Ceramides and panthenol improve skin resilience and reduce transepidermal water loss (TEWL).
7. **Soothes and refreshes** – Green tea extract calms the skin while providing anti-inflammatory benefits.

8. **Refines skin texture & radiance** – Leaves skin soft, smooth, and naturally glowing.
9. **Lightweight & non-greasy** – Ideal for normal skin, absorbs quickly without heaviness.
10. **Dermatologically balanced** – Formulated with essential nutrients for daily anti-aging protection.

Optional Tagline for Marketing Use:

🌟 “Smart age defense – hydrated, firm, and radiant skin, every day.”

Ingredients	Percentage(%)	Remark
Phase A		
Distilled Water	71	
Glycerine	2.5	
Pentylene Glycol	2	
Xanthan Gum	0.25	
DiSodium EDTA	0.05	
Phase B		
Meadow Foam Oil	4	
Glyceryl Stearate PEG-100	3.5	
Isoamyl Lauret	3	
Cetyl Alcohol	2.5	
Marula Oil	2	
Shea Butter	1	
BHT	0.25	
Squalane Light	2	

Phase C		
Green Tea Extract	1	
Ceramide Complex	2	
Retinyl Palmitate	0.1	
D-Panthenol	0.4	
Tocopheryl Acetate	0.4	
Phenoxy Ethanol	0.5	
Essential oils	0.1	
Wheat protein	1	

Manufacturing Procedure

- ✓ **Batch Type:** Oil-in-Water Emulsion (O/W)
- ✓ **Process Type:** Hot Emulsion with Cool-down Phase Additions
- ✓ **Total Batch Size:** 100% (Adjust quantity proportionally)

◆ Phase A – Aqueous Phase Preparation

1. **Start heating** the main mixing vessel.
Set temperature to **75–80°C**.
2. Into the main vessel, **add the following ingredients in order**, under moderate stirring (300–500 rpm):
 - Distilled Water – 71%
 - Disodium EDTA – 0.05%
 - Glycerine – 2.5%
 - Polyethylene Glycol – 2%

- Xanthan Gum – 0.25%
- 3. **Continue stirring** for 10–15 minutes until all powders are completely dissolved and a uniform gel-like texture forms.

◆ Phase B – Oil Phase Preparation

1. In a separate oil-phase vessel, add:
 - Meadowfoam Oil – 4%
 - Marula Oil – 2%
 - Squalane (Light) – 2%
 - Shea Butter – 1%
 - Isoamyl Laurate – 3%
 - Cetyl Alcohol – 2.5%
 - Glyceryl Stearate & PEG-100 Stearate – 3.5%
 - BHT – 0.25%
2. **Heat the oil phase** to **75–80°C** until all ingredients are fully melted and homogenous.

◆ Emulsification (Phase A + B)

1. Once both **Phase A & Phase B** are at the same temperature (~75°C), **slowly add Phase B into Phase A** under high shear mixing (1000–1500 rpm).
2. Continue mixing for **15–20 minutes** until a stable emulsion forms (milky white, creamy texture).
3. **Begin cooling** the batch gradually while maintaining continuous stirring (500–800 rpm).

◆ Phase C – Cool-down Phase (below 45°C)

Once the emulsion cools down to below **45°C**, add the following ingredients one by one under gentle stirring:

- Green Tea Extract – 1%
- D-Panthenol – 0.4%
- Tocopheryl Acetate – 0.4%
- Ceramide Complex – 2%
- Retinyl Palmitate – 0.1% (light-sensitive, add quickly)
- Phenoxyethanol – 0.5%
- Wheat Protein – 1%
- Essential Oils – 0.1%

👉 **Note:** Stir gently for 10–15 minutes after Phase C additions to ensure uniform distribution.

✓ Final Steps

1. **Check pH:** Adjust to 5.0–5.5 using Citric Acid or Triethanolamine if needed.
2. **Viscosity Check:** Optional, depending on desired cream thickness.

3. **De-aerate** the batch if necessary (use vacuum or low-shear mixing).
4. **Fill into air-tight containers** under hygienic conditions.

Storage Advice

- Store between 20–25°C in a cool, dry place.
- Shelf life: 12–18 months under normal conditions.
-

QC Checklist: Ceramide & Retinol Moisturizing Cream

QC Parameter	Specification / Limit	Test Method	Remarks
Appearance	Smooth, semi-thick cream; off-white to cream-colored	Visual Inspection	No graininess, separation, or discoloration
Odor	Mild, pleasant (natural/essential oil blend)	Sensory (Smell)	No rancid or chemical odor
pH (5% solution)	5.0 – 6.0	pH meter	Gentle on skin; suitable for retinol stability
Viscosity	25,000 – 60,000 cP (Brookfield, Spindle #5, 10 rpm)	Brookfield Viscometer	Stable texture, easy spreadability
Stability Test	No phase separation, odor, or color change (1–6 months)	Stability Chamber	25°C, 40°C, Freeze-Thaw Cycle
Microbial Limit	TVC < 100 CFU/g; Pathogens absent	ISO 21149, ISO 16212	No E. coli, P. aeruginosa, S. aureus, Candida
Preservative Efficacy	Should pass PET (Challenge Test)	ISO 11930	Required due to natural extracts
Heavy Metals	Within safe limit	AAS or ICP-MS	Especially for leave-on facial care
Packaging Compatibility	No leakage, warping, or interaction	Physical + Accelerated Test	Especially with Retinol + Ceramides
Retinol Stability	> 85% potency retained after 3 months @ 40°C	HPLC (if needed)	Optional but ideal for premium product
Label Accuracy	All mandatory info present	Manual Review	INCI list, warnings, expiry, usage, batch, etc.

Smart Regulatory Compliance Guideline

 **Product Name:** *Advanced Skin Barrier Repair Cream with Retinol, Ceramides & Antioxidants*

Target Market: Bangladesh, ASEAN, South Asia (EU-compliant design)

Product Type: Leave-on face cream (Night moisturizer)

1. Ingredient Safety

Category	Examples in Formula	Compliance
Moisturizers	Glycerin, Squalane, Shea Butter	Safe; globally accepted
Emollients & Esters	Meadowfoam Oil, Isoamyl Laurate	Safe under general concentration
Actives	Ceramide Complex (2%), Retinyl Palmitate	Compliant; Retinol under 0.1%
Humectants	Pentylene Glycol, Glycerin	Widely accepted
Preservatives	Phenoxyethanol (0.5%)	Under max limit (EU/BD)
Antioxidants	BHT, Vitamin E, Green Tea Extract	Within safe concentration

 No banned or restricted substances detected

 Suitable for facial use and nighttime application

2. Claims Allowed (Based on Actives)

Claim Type	Basis
Skin barrier repair	Ceramides, Squalane, Marula Oil
Anti-aging	Retinyl Palmitate, Tocopheryl Acetate, Panthenol
Deep moisturizing	Pentylene Glycol, Glycerin, Shea Butter
Antioxidant protection	Green Tea, Vitamin E, BHT
Nourishing & brightening	Wheat Protein, Marula Oil

Note: Claims must be supported by supplier data, clinical references, or literature.

3. Packaging & Labeling

Mandatory label elements:

- Product Name
- Net Weight (e.g., 50g)

- Ingredient List (INCI order)
- Manufacturer/Brand Name
- Batch No. & Expiry Date
- Country of Manufacture
- Instructions for Use
- Warnings:
 - *“For external use only”*
 - *“Avoid direct sun exposure immediately after application” (due to Retinol)*
 - *“Patch test recommended before full use”*

4. Document Checklist for Production

Document Name	Use
SDS (All ingredients)	Required for manufacturing & regulatory
COA (Ceramides, Retinol)	Ingredient quality confirmation
BMR (Batch Record)	Production tracking & validation
PIF	Product info file including testing & claims
Stability Test Report	For shelf life and claim support

Packaging Recommendation

- **Opaque airless jar/tube** to protect Retinol and Ceramides from oxidation and light.
- **Label finish:** Matt laminated or UV-protected to match premium positioning.

Formulation-5

Original Brightening Moisturizing Cream

Benefits / Claims of Brightening Moisturizing Cream

1. **Brightens dull skin** – Niacinamide, Glutathione, and Alpha Arbutin help reduce pigmentation and enhance radiance.
2. **Deeply hydrates & locks in moisture** – Hyaluronic Acid, Sorbitol, and Glycerin provide long-lasting hydration.

Evens skin tone – Vitamin C (SAP), Alpha Arbutin, and Rose Extract help fade dark spots and promote even skin.

3. **Supports antioxidant protection** – Glutathione, Vitamin E, and Green Tea Extract fight oxidative stress.

4. **Smoothens & softens skin texture** – Silicones (Dimethicone, Cyclopentasiloxane) provide a silky, smooth finish.
5. **Strengthens skin barrier** – Panthenol, Lecithin, and 1,3-Propanediol help repair and protect the skin's barrier.
6. **Soothes and calms the skin** – Lavender oil and Rose Extract reduce irritation and refresh the skin.
7. **Improves elasticity and suppleness** – Gelatin, Tocopheryl Acetate, and Hemisqualane nourish and firm the skin.
8. **Lightweight & non-sticky** – Fast-absorbing, comfortable formula ideal for daily use.

Optional Tagline:

✨ “Glow smart – hydrate, brighten, and protect your skin in one powerful cream.”

Name	gm	Remark
Phase 1		
DM Water	100	
DSEDTA	0.1	
Sorbitol	5	
1,3 -Propane Diol	4	
Triethanolamine	4	
Acacia Senegal or Xanthan Gum	0.1	
Phase 2		
DM Water	8	
Acrylate Co Polymer	8	
Phase 3		
DM Water	20	
Sodium Hyaluronate	1	
Carbopol Ultrez -20	0.1	
Glycerine	5	
Phase 4		
Dimethicone	3	
Cyclopentasiloxane	4	
CCTG	1	
DC-245	2	
Hemisqualane	1	
Argan Oil	0.5	
Lavender Oil	0.1	
Ginol 6820	4	
Oleic Acid	1	
Glyceryl Stearate	1	
Hydrogenated Lecithin	1	
RM -2051	4	

Gelatin	1	
Phase 5		
Rose Extract	5	
Niacinamid	5	
Glutathione	5	
Alpha Arbutin	4	
D-Panthenol	1	
All-rac-Alpha Tocopheryl Acetate	1	
Sodium Ascorbyl Phosphate	1	
Phase 6		
Phenoxyethanol	0.5	
Ethyl Hexyl Glycerine	0.5	
Limonene	0.1	
Linalool	0.1	
Hexyl Cinamal	0.1	



Manufacturing Procedure

✓ *Total Batch Size: 100%*

✓ *Preparation Environment:*

- Use SS316 mixing vessel with overhead stirrer and homogenizer
- Maintain hygiene (gloves, mask, sanitized tools)
- Use deionized (DM) water



PHASE 1: Aqueous Base Preparation

1. Take **100% of DM Water** into the main vessel.
2. Add **Disodium EDTA (0.1%)**, mix until fully dissolved.
3. Add **Sorbitol (5%)** and **1,3-Propane Diol (4%)**, continue mixing.
4. Add **Triethanolamine (4%)**, stir well.
5. Sprinkle **Acacia Senegal or Xanthan Gum (0.1%)** slowly while mixing at 800–1000 rpm to avoid clumping.
6. Continue mixing until uniform transparent gel forms.



PHASE 2: Polymer Gel Phase (Pre-mix separately)

1. In a separate beaker, take **8% DM Water**.
2. Disperse **Acrylate Copolymer (8%)** into it.
3. Mix at 800–1000 rpm until a smooth gel is formed.

4. Add this gel slowly into Phase 1 under stirring. Ensure uniform blending.

PHASE 3: Hyaluronic Gel Premix (Separate Vessel)

1. Take **20% DM Water**, add **Sodium Hyaluronate (1%)**, allow to hydrate fully (wait ~30 min).
2. Add **Glycerine (5%)** and **Carbopol Ultrez 20 (0.1%)**, mix gently until fully dispersed.
3. Neutralize if needed with pH adjuster (check pH target: ~5.5–6).
4. Add this phase into main vessel slowly under continuous stirring.

PHASE 4: Oil Phase Preparation (Heat Required)

1. In a separate vessel, combine:
 - **Dimethicone (3%)**
 - **Cyclopentasiloxane (4%)**
 - **CCTG (1%)**
 - **DC-245 (2%)**
 - **Hemisqualane (1%)**
 - **Argan Oil (0.5%)**
 - **Lavender Oil (0.1%)**
 - **Ginol 6820 (4%)**
 - **Oleic Acid (1%)**
 - **Glyceryl Stearate (1%)**
 - **Hydrogenated Lecithin (1%)**
 - **RM-2051 (4%)**
 - **Gelatin (1%)**
2. Heat oil phase to **70–75°C** until all solids melt completely.
3. Homogenize if required to ensure uniformity.
4. Cool down to **40°C**, then slowly add to main vessel under stirring.

PHASE 5: Active Ingredients Addition (Cool Phase)

1. Once batch temp reaches **<40°C**, add the following one by one:
 - **Rose Extract (5%)**
 - **Niacinamide (5%)**
 - **Glutathione (5%)**
 - **Alpha Arbutin (4%)**
 - **D-Panthenol (1%)**
 - **Vitamin E Acetate (1%)**
 - **Sodium Ascorbyl Phosphate (1%)**
2. Stir gently to avoid degradation of actives.

PHASE 6: Preservative & Fragrance Blend

1. Add:
 - **Phenoxyethanol (0.5%)**
 - **Ethylhexylglycerin (0.5%)**
 - **Limonene (0.1%)**

- Linalool (0.1%)
 - Hexyl Cinnamal (0.1%)
2. Stir well until homogeneous.

Final Steps

1. **Check pH:** Adjust if necessary (ideal range: **5.5–6.0**)
2. **Check Viscosity:** Should be rich but spreadable
3. **Final Homogenization:** 2 minutes at 2000 rpm for smooth texture
4. **Filling Temperature:** Allow cooling to **room temperature** before filling
5. **Fill** in sterilized containers, label, and pack.

Notes:

- Store in a **cool, dry** place away from direct light.
- Conduct **stability & microbial tests** before launch.

Formulation-6

Advance Brightening Moisturizing Cream

Benefits / Claims of Advance Brightening Moisturizing Cream

1. **Brightens and evens skin tone** – Niacinamide, Alpha Arbutin, and Glutathione visibly reduce dullness and pigmentation.
2. **Provides deep hydration** – Hyaluronic Acid, Glycerin, and 1,3-Propanediol lock in moisture for soft, supple skin.
3. **Nourishes and repairs** – Vitamin E, D-Panthenol, and Allantoin support skin regeneration and smoothness.

4. **Improves texture and radiance** – Rose Extract and Dimethicone leave skin silky, glowing, and refreshed.
5. **Fights free radicals** – Glutathione and Vitamin E offer antioxidant defense to delay signs of aging.
6. **Non-greasy, smooth finish** – Lightweight, fast-absorbing formula suitable for daily use on all skin types.
7. **Gentle and skin-friendly** – Contains soothing agents and is free from harsh irritants.

Optional Tagline:

✨ “Advanced hydration meets visible brightening – for naturally glowing, healthy skin.”

Name	%	Remark
Aqua	50	
DSEDTA	0.05	
1,3-Propane Diol	5	
Glycerine	5	
Xhanthan Gum	0.1	
Allantoin	0.2	
EGDS	1	
Cetyl Alcohol	2	
Ginol 6820	4	
Petroleum Jelly	1	
IPM	1	
GMS	1	
CCTG	1	
Butylated Hydroxytolune	0.5	
Dimethicone	2	
Tocopheryl Acetate	0.5	
D-Panthenol	1	
Liquid Paraffin	8	
Rose Extract	5	
Acrylate Polymer	1	
Na-Hyaluronate	0.5	
Alpha Arbutin	2	
Glutathione	2	
Niacinamide	5	
Phenoxyethanol	0.5	
Limonene	0.1	
Linalool	0.1	
Hexy Cinamal	0.1	
Total	100	



Manufacturing Procedure

◆ Phase A (Aqueous Phase - Water Soluble)

1. In a stainless steel mixing tank, take **DM Water (Aqua)** and begin heating to **75–80°C** under continuous stirring.
2. Add:
 - Disodium EDTA – **0.05%**
 - 1,3-Propane Diol – **5%**
 - Glycerine – **5%**
 - Allantoin – **0.2%**
 - Xanthan Gum – **0.1%** (disperse slowly to avoid lumps; pre-wet in glycerine if needed)
3. Stir continuously until all ingredients are dissolved completely and a smooth, lump-free mixture is achieved.

◆ Phase B (Oil Phase - Emulsifiers & Oils)

1. In a separate vessel, heat to **75–80°C** and melt:
 - Cetyl Alcohol – **2%**
 - GMS (Glyceryl Monostearate) – **1%**
 - CCTG (Caprylic/Capric Triglyceride) – **1%**
 - Petroleum Jelly – **1%**
 - Liquid Paraffin – **8%**
 - IPM (Isopropyl Myristate) – **1%**
 - Ginol 6820 – **4%** (*Emulsifier blend*)
 - EGDS (Ethylene Glycol Distearate) – **1%**
 - Butylated Hydroxytoluene (BHT) – **0.5%**
 - Dimethicone – **2%**
2. Ensure all oil-phase ingredients are completely melted and uniform.

◆ Phase C (Emulsification)

1. Slowly add the **oil phase (Phase B)** into the **water phase (Phase A)** with high-shear mixing at **75°C**.
2. Continue mixing for **10–15 minutes** until emulsion forms.
3. Begin gradual cooling while stirring continuously.

◆ Phase D (Cool Phase - Heat-Sensitive Actives & Fragrance)

When the batch temperature reaches **below 40°C**, add:

- Tocopheryl Acetate (Vitamin E) – **0.5%**
- D-Panthenol – **1%**
- Rose Extract – **5%**

- **Alpha Arbutin** – 2%
- **Glutathione** – 2%
- **Niacinamide** – 5%
- **Acrylates Polymer (thickener)** – 1%
- **Sodium Hyaluronate** – 0.5%
- **Phenoxyethanol** – 0.5% (*preservative*)
- **Fragrance components:**
 - **Limonene** – 0.1%
 - **Linalool** – 0.1%
 - **Hexyl Cinnamal** – 0.1%
 - **Citral** – 0.1%

Stir gently but thoroughly until a smooth, glossy cream forms.

✓ Final Steps

1. **pH Adjustment:** Measure pH; adjust to **5.0–5.5** using **citric acid** or **TEA** if needed.
2. **Viscosity Check:** Ensure uniform consistency.
3. **Fill** the finished cream into sterilized containers when the temperature drops below **35°C**.
4. **Label** and store at room temperature.

Note:

- **Hygiene and GMP** (Good Manufacturing Practice) must be followed throughout.
- Use **homogenizer** if available for better emulsion stability.

Formulation-7

Advance skin Brightening Tone up Cream

✓ Benefits / Claims of Advance Brightening tone up Cream

1. **Advanced Skin Brightening**
Niacinamide, Alpha Arbutin, and Glutathione work together to reduce dark spots, pigmentation, and uneven tone.

2. **Deep Hydration & Moisture Lock**
Sodium Hyaluronate, Glycerin, and Propylene Glycol deliver long-lasting hydration for soft, dewy skin.
3. **UV Protection Support**
Micronized Titanium Dioxide offers mild physical sun protection to prevent further discoloration.
4. **Skin Soothing & Repairing**
Allantoin, Aloe Vera, Calendula, and Centella Extract calm irritation, heal microdamage, and support barrier repair.
5. **Anti-Oxidant & Anti-Aging Care**
Glutathione, Vitamin E, and botanical extracts protect skin from oxidative damage and environmental stress.
6. **Even Texture & Smooth Finish**
Emollients like Dimethicone, Liquid Paraffin, and Shea Butter provide a silky, smooth, non-greasy feel.
7. **Lightweight & Dermatologically Balanced**
Fast-absorbing, suitable for all skin types – especially effective for dull, pigmented, and uneven skin.

Optional Tagline:

✨ “Brighten boldly. Repair gently. Glow naturally – with every use.”

Name	%	Remark
Phase A		
Aqua	42	
Disodium EDTA	0.21	
Allantoin	0.42	
Xanthan Gum	0.2	
Triethanolamine	2	
Sodium Benzonate	0.2	
Boric Acid	0.5	
Glycerine	5	
Citric Acid	0.60	
Micronized Titanium Dioxide	0.5	
Phase B		
Cetyl Alcohol	4	
Ginol 6820	4	
Synthetic Bees Wax	2	
Petroleum Jelly	0.5	
Liquid Paraffin	10	
Glyceral Stearate	2	
Oleic Acid	1	
Isopropyl Myristate	2	
Ethylene Glycol Distearate	2	

Butylated Hydroxytoluene	0.5	
Shea Butter	2	
Phase C		
Kojic Dipalmitate	1	
Dimethicone	1	
Tocopheryl Acetate	0.5	
Phase D		
DM Water	5	
Carbopol Ultrez-20	0.25	
Sodium Hyaluronate	0.1	
Glycerine	2	
Phase E		
DM Water	1	
Polyacrylate Polymer	1	
Phase F		
Rosa rubiginosa Extract	0.1	
Calendula Officinalis Extract	0.1	
Centella Asiatica Extract	0.1	
Aloeverabadensis Leaf Extract	0.1	
Alpha Arbutin	2	
Glutathione	2	
Niacinamide	5	
Propylene Glycol	2	
Phenoxyethanol	0.5	
Ethyl Hexyl Glycerine	0.1	
Fragrance (Wood sage and sea salt)	0.1	
Total	100	

✓ Manufacturing Procedure:

⚙ Equipment Required:

- SS Mixing Vessel with Heating Jacket
- Overhead Stirrer (Variable Speed)
- Homogenizer
- pH Meter
- Thermometer
- Measuring Equipment (Beakers, Spatulas, etc.)

Step by Step Procedure:

✓ Step 1: Phase A – Water Phase Preparation

1. In the main vessel, add **Aqua (42%)** and start stirring at 300–400 RPM.
2. Add **Disodium EDTA (0.21%)**, allow to dissolve completely.
3. Add **Allantoin (0.42%)**, stir until fully dissolved.
4. Sprinkle **Xanthan Gum (0.2%)** slowly under continuous stirring to avoid clumps. Let it hydrate for 20–30 minutes.
5. Add **Triethanolamine (2%)**, **Sodium Benzoate (0.2%)**, **Boric Acid (0.5%)**, and **Glycerine (5%)** one by one.
6. Add **Citric Acid (0.6%)** to adjust pH around 5.5–6.
7. Disperse **Micronized Titanium Dioxide (0.5%)** slowly into the phase while stirring.

◆ Heat Phase A to 75–80°C.

✓ Step 2: Phase B – Oil Phase Preparation

1. In a separate vessel, add:
 - **Cetyl Alcohol (4%)**
 - **Ginol 6820 (4%)**
 - **Synthetic Beeswax (2%)**
 - **Petroleum Jelly (0.5%)**
 - **Liquid Paraffin (10%)**
 - **Glyceryl Stearate (2%)**
 - **Oleic Acid (1%)**
 - **Isopropyl Myristate (2%)**
 - **Ethylene Glycol Distearate (2%)**
 - **Butylated Hydroxytoluene (0.5%)**
 - **Shea Butter (2%)**
2. Heat to **75–80°C** with continuous stirring until fully melted and uniform.

✓ Step 3: Emulsification

1. Once **Phase A & Phase B** are at the same temperature (75–80°C), **slowly add Phase B into Phase A** under high-speed stirring (800–1000 RPM).
2. Homogenize the mixture for **5–10 minutes** to form a stable white emulsion.
3. Start cooling slowly while stirring continuously (400–500 RPM).

✓ Step 4: Phase C – Additives (Cool Down Phase)

1. When the temperature drops below **45°C**, add:
 - **Kojic Dipalmitate (1%)**
 - **Dimethicone (1%)**
 - **Tocopheryl Acetate (0.5%)**
2. Mix gently for uniform dispersion.

✓ Step 5: Phase D – Gel Preparation

1. In a separate beaker, disperse **Carbopol Ultrez-20 (0.25%)** into **DM Water (5%)**.
2. Allow to hydrate for 20–30 minutes, then add:
 - **Sodium Hyaluronate (0.1%)**
 - **Glycerine (2%)**
3. Mix until smooth gel is formed.
4. Add this gel to the main batch under gentle stirring.

✓ Step 6: Phase E – Thickener System

1. Disperse **Polyacrylate Polymer (1%)** in **DM Water (1%)**.
2. Mix until lump-free and add to the batch to improve viscosity and texture.

✓ Step 7: Phase F – Actives & Botanicals

1. Below **40°C**, add the following one by one with gentle stirring:
 - **Rosa Rubiginosa Extract (0.1%)**
 - **Calendula Officinalis Extract (0.1%)**
 - **Centella Asiatica Extract (0.1%)**
 - **Aloe Vera Extract (0.1%)**
 - **Alpha Arbutin (2%)**
 - **Glutathione (2%)**
 - **Niacinamide (5%)**
 - **Propylene Glycol (2%)**

✓ Step 8: Preservatives & Fragrance

1. Add **Phenoxyethanol (0.5%)**
2. Add **Ethylhexylglycerin (0.1%)**
3. Add **Fragrance - Wood Sage & Sea Salt (0.1%)**

✓ Final Adjustments

- Check **pH** and adjust to **5.0–5.5** using **Citric Acid** or **TEA** if needed.
- Mix gently and allow to cool to **room temperature (25–30°C)**.
- Check **viscosity, texture, and color**.
- **Transfer** to filling line and store in suitable containers.

Formulation-8

Advance Brightening Face Serum

Name	%	Remark
DM Water	87	
Di-Sodium EDTA	0.05	
Allantoin	0.25	
Carbopol 980	0.4	
Sodium Hyaluronate	0.6	
Glycerine	2	
Sodium PCA	0.5	
Niacinamide	5	
Alpha Arbutin	2	
Sodium Hydroxide, 0.1% Solution	Qs	
Phenoxyethanol	0.5	
Ethyl Hexyl Glycerine	0.25	
Propylene Glycol	2	
Total	100	



Product Tagline:

“Glow that shows – Naturally Bright, Deeply Hydrated.”



Manufacturing Process

Batch Size: As per requirement

Manufacturing Area: Cleanroom, ISO 7 preferred

Mixing Vessel: SS316 with agitator

Temperature Range: Ambient (25°C – 30°C)

pH Range (Final Product): 5.0 – 5.5



Phase A: Water Phase Preparation

1. **Take 87% of DM Water** in a clean, sanitized mixing vessel. Begin slow stirring (100–150 rpm).
2. Add **0.05% Di-Sodium EDTA** slowly and stir until completely dissolved.

- 3. Add **0.25% Allantoin** and keep stirring. Slight heating (~35°C) may be used to fully dissolve.
- 4. Sprinkle **0.4% Carbopol 980** while stirring. Let it hydrate fully (approx. 30 mins). No lumps should remain.
- 5. Add **0.6% Sodium Hyaluronate**, continue gentle stirring to prevent air entrapment.
- 6. Add **2% Glycerine** and **0.5% Sodium PCA**, continue mixing.
- 7. Add **5% Niacinamide** and **2% Alpha Arbutin** slowly, ensuring each is fully dissolved before the next.

◆ Phase B: Solubilization & Preservative System

- 8. In a separate beaker, mix:
 - **0.5% Phenoxyethanol**
 - **0.25% Ethyl Hexyl Glycerine**
 - **2% Propylene Glycol**

Stir until uniform. Add this blend into Phase A with continuous mixing.

◆ Phase C: pH Adjustment

- 9. Slowly adjust pH using **0.1% Sodium Hydroxide Solution** while monitoring with a calibrated pH meter.
 - **Target pH: 5.0 – 5.5**
 - Add dropwise, stir and allow 10 minutes equilibration before final reading.

◆ Finalization

- 10. Once pH is correct and the product is clear or slightly hazy (as expected), continue slow stirring (50–70 rpm) for 10 minutes to remove air bubbles.
- 11. Filter the product (optional: 0.45 µm filter) before filling.
- 12. Fill in **airless pump bottles** or **amber glass dropper bottles** under hygienic conditions.

✓ QC Checklist:

Parameter	Specification	Method
Appearance	Clear to slightly hazy serum	Visual
pH	5.0 – 5.5	pH Meter
Viscosity (cps)	500 – 1500	Brookfield Viscometer
Microbial Count (TAMC)	<100 CFU/g	Plate Count Method
Preservative Efficacy (PET)	Must pass	ISO 11930
Stability (Initial)	1 week @ RT and 40°C	Observation
Packaging Compatibility	No leakage/discoloration	Visual/Functional test

Regulatory Guidelines: (Bangladesh + International)

1. Ingredient Compliance:

- All ingredients must comply with **BSTI, ASEAN Cosmetic Directive, EU Cosmetics Regulation (EC) No 1223/2009**, and **US FDA INCI** guidelines.

2. Labeling Requirements:

- INCI Name of ingredients
- Net quantity
- Manufacturer & address
- Manufacturing & Expiry date
- Batch No.
- Usage direction
- Storage instruction
- “For external use only”

3. Claims Regulation:

- Avoid using terms like “whitening” (use **brightening, radiance-boosting**).
- No therapeutic or medicinal claims unless proven by clinical trial.

4. Shelf Life Testing:

- Minimum **stability test: 3 months** under accelerated conditions (40°C ±2°C, 75% RH).
- PET (Preservative Efficacy Test) must be passed for long-term safety.

5. Safety Assessment File:

- MSDS/SDS of each ingredient
- Safety certificates
- Microbiology test reports
- Batch records & formulation file

Storage & Packaging:

- Store below 30°C in a **cool, dry place**, away from direct sunlight.
- Use **airtight, light-protected packaging** (e.g., amber dropper bottle or opaque airless pump).
- Avoid metallic contact due to Niacinamide and Arbutin sensitivity.

Formulation-9

Exclusive Premium Anti Aging Serum

Name	%	Remark
Phase A		
Distilled Water	60	
Propylene Glycol	2	
Di-Sodium EDTA	0.1	
Allantoin	0.5	
Phase B		
Caprylic/Capric Triglyceride	4	
Squalane	3	
Jobba Oil	2	
Cetyl Alcohol	1	
Glyceryl Stearate	1	
Phase C	1	
Sodium Hyaluronate	0.25	
Glycerine	2	
DM Water	5	
Phase D		
Niacinamide	2	
Glutathione	1	
Phase E		
Matrixyl 3000	5	
Argeraline	5	
Magnesium Ascorbyl Glucoside	1	
Retinyl Palmited	0.2	
Panthenol (Vitamin B5)	1	
Tocopheryl Acetate	0.5	
Phase F		
Phenoxy Ethanol	0.5	
Fragrance(Optional)	0.3	
PH Adjuster (Lactic Acid Glycoli Acid)	0.5	
Total	100	



Manufacturing Procedure

Batch Size: As required

Equipment Needed:

- Overhead stirrer with homogenizer

- Water bath/heating system
- pH meter
- SS mixing vessel with jacket (for heating & cooling)
- Clean and sterilized containers for sampling and packing

Step-by-Step Procedure

1. Phase A – Aqueous Phase Preparation

1. In a clean stainless-steel vessel, add **Distilled Water** (60%) and start slow stirring (~300 rpm).
2. Add **Propylene Glycol** (2%) and mix until fully dissolved.
3. Add **Disodium EDTA** (0.1%) and mix well.
4. Slowly add **Allantoin** (0.5%) while stirring continuously until completely dissolved. Heat to **40–45°C** if needed for better dissolution.

2. Phase B – Oil Phase Preparation

1. In a separate vessel, add and mix the following:
 - **Caprylic/Capric Triglyceride** (4%)
 - **Squalane** (3%)
 - **Jobba Oil** (2%)
 - **Cetyl Alcohol** (1%)
 - **Glyceryl Stearate** (1%)
2. Heat Phase B to **70–75°C** until all waxy materials are fully melted and a uniform oil phase is achieved.

3. Emulsification

1. Heat **Phase A** to **70°C** to match Phase B temperature.
2. Slowly add **Phase B** into **Phase A** under continuous stirring.
3. Use a **homogenizer** at 4000–6000 rpm for **3–5 minutes** to form a stable emulsion.
4. Reduce mixing speed and allow to cool to **below 40°C** while continuing gentle stirring.

4. Phase C – Hydration & Humectants

1. Pre-mix **Sodium Hyaluronate** (0.25%) in **DM Water** (5%) until fully hydrated.
2. Add **Glycerine** (2%) to the mix.
3. Add the whole Phase C to the emulsion (below 40°C) and stir well.

5. Phase D – Actives Addition (Water-Soluble)

1. Once temperature is between **35–40°C**, add:
 - **Niacinamide** (2%)

- **Glutathione (1%)**
- 2. Stir continuously for even distribution.

6. Phase E – Peptides, Vitamins & Sensitive Actives

1. Add the following sequentially with gentle mixing:
 - **Matrixyl 3000 (5%)**
 - **Argireline (5%)**
 - **Magnesium Ascorbyl Glucoside (1%)**
 - **Retinyl Palmitate (0.2%)**
 - **Panthenol (Vitamin B5) (1%)**
 - **Tocopheryl Acetate (Vitamin E) (0.5%)**

 *Ensure temperature is below 35°C to prevent degradation of heat-sensitive ingredients.*

7. Phase F – Preservative & Final Adjustments

1. Add **Phenoxyethanol (0.5%)** and **Fragrance (optional, 0.3%)** and mix thoroughly.
2. Adjust final pH to **5.0–5.5** using **Lactic Acid** or **Glycolic Acid (0.5%)** dropwise.
3. Conduct quality checks (pH, viscosity, stability).
4. Once uniform and all parameters are satisfactory, transfer to final container under hygienic conditions.

Storage & Packaging

- Fill in **airless pump bottles** or **UV-protected glass dropper bottles**.
- Store in a cool, dry place below 25°C.
- Label with manufacturing & expiry date.

Notes

- **Microbiological & stability testing** should be performed before commercial release.
- Avoid metal contact during production due to Glutathione and Vitamin C derivatives.
- GMP hygiene protocols must be followed strictly throughout the process.

Formulation 10

Advance Calming Lavender Shower Gel -s

Name	%	Remark
DM Water	62.55	
EDTA	0.10	
Citric Acid	0.37	
SLES	12.81	
Sodium Cocoyl Glycinate	4.53	
Acrylate Copolymer	1.31	
DM Water	1.31	
Cocamido Propyl Betain	5.27	
Coco-Di Ethanolamine	2.63	
Decyl Glucoside	0.75	
1,3-Propane Glycol	2	
Polyethylene Glycol-400	1.69	
Sodium PCA	3.20	
Sorbitol	3.20	
KOH	0.11	
DM Water	0.11	
Lavender Oil	0.1	
Hydrogenated Castor Oil	1	
Limonene	0.05	
Linalool	0.05	
Fragrance	0.1	
Color Violate	Qs	
Color Red	Qs	
Total	100	



Manufacturing Procedure

Formula Type: Transparent Hydrating Shower Gel

Batch Size: 100 Kg (can be scaled accordingly)

Equipment Required

- Stainless Steel Mixing Tank (with anchor stirrer & heating)
- Overhead Mixer (variable speed)

- pH Meter
- Thermometer
- Weighing Scale
- Filling Unit (manual or automatic)

Manufacturing Steps

Phase A – Aqueous Base Preparation

1. **Start Heating:**
In a clean, sanitized stainless-steel mixing tank, add **62.55% Deionized (DM) Water** and start gentle stirring at 300–500 rpm.
2. **Add Chelating Agent:**
Add **0.10% EDTA** slowly. Continue mixing for 5 minutes until fully dissolved. This will help bind metal ions and improve formulation stability.
3. **Adjust pH (if needed):**
Add **0.37% Citric Acid**, pre-dissolved in a small amount of water, to slightly acidify the base and maintain the desired pH (around 5.5–6.5).

Phase B – Surfactant Blending

4. **Add Primary Surfactant:**
Add **12.81% SLES** slowly under continuous stirring to avoid foaming. Allow it to blend for 10–15 minutes.
5. **Add Secondary Surfactants:**
Add the following one by one, ensuring uniform mixing after each addition:
 - **4.53% Sodium Cocoyl Glycinate**
 - **5.27% Cocamidopropyl Betaine**
 - **2.63% Coco Diethanolamine**
 - **0.75% Decyl Glucoside**
6. **Add Rheology Modifier (Thickener):**
Disperse **1.31% Acrylates Copolymer** in **1.31% DM Water** in a separate vessel. Add this pre-hydrated gel phase slowly to the main batch under moderate stirring. Continue mixing until clear and homogeneous.

Phase C – Humectant & Conditioning Phase

7. **Add Moisturizers & Humectants:**
Add the following ingredients to boost hydration and skin conditioning:
 - **2.00% 1,3-Propane Diol**
 - **1.69% PEG-400**
 - **3.20% Sodium PCA**
 - **3.20% Sorbitol**
8. **Add pH Adjuster:**
Prepare **0.11% KOH** in **0.11% DM Water** and add to adjust viscosity and pH as necessary. Check pH and ensure it remains within 5.5–6.5 range.

Phase D – Fragrance & Additives

9. Add Active Oil & Essential Oil:

- **1.00% Hydrogenated Castor Oil** (as a solubilizer & skin softener)
- **0.10% Lavender Oil** (calming aroma & skin benefits)

10. Add Fragrance Components (Allergen Declaration Compliant):

- **0.05% Limonene**
- **0.05% Linalool**
- **0.10% Fragrance** (IFRA certified)

Phase E – Color & Final Adjustment

11. Color Addition:

Add **Color Violet** and **Color Red** as per desired appearance. Use only permitted cosmetic-grade colors. Add dropwise under slow stirring.

12. Final Mixing:

Mix for an additional 10–15 minutes at moderate speed. Allow any entrapped air to settle. Product should be crystal clear to slightly tinted depending on dye quantity.

Quality Control Checks

- **Appearance:** Clear to slightly colored gel
- **pH:** 5.5–6.5
- **Viscosity:** 5,000–15,000 cps (Brookfield)
- **Foam Test:** Stable and creamy lather
- **Microbial Test:** < 100 CFU/ml (no pathogens)

Filling & Packaging

- Once the batch passes QC, fill into pre-cleaned bottles using a filling unit.
- Seal tightly, label with batch number, manufacturing & expiry date.
- Store at room temperature away from direct sunlight.

Storage & Shelf-Life

- **Storage:** Store in cool, dry conditions.
- **Shelf-life:** 24 months (under recommended storage conditions).

Formulation-11

Advance Snail Collagen Face Wash With Vitamin E

Name	%	Remark
Phase A		
DM Water	42.00	
Di Sodium EDTA	0.10	
Glycerine	2.00	
Butylene Glycol	2.00	
Potassium Hydroxide	7.40	
Phase B		
Lauric Acid- 99%	8.00	
Myristic Acid -99%	10.00	
Stearic Acid-99%	19.00	
Salicylic Acid	0.20	
PEGDS	1.50	
Butylated Hydroxy Toluene	0.10	
Phase C		
DM Water	4	
Collagen	0.5	
Phase D		
Phenoxy Ethanol	0.50	
Vitamin E Acetate	0.10	
Snail Mucin	0.5	
Fragrance	0.30	
Total	100.00	

Manufacturing Procedure

Phase A: Aqueous Phase Preparation

- Heat DM Water (42.00%) to 75–80°C in the main mixing vessel.
- Add Disodium EDTA (0.10%) and mix until dissolved.
- Add Glycerine (2.00%) and Propylene Glycol (2.00%), stir well.
- Slowly add Potassium Hydroxide (7.40%), mix until completely dissolved.

Phase B: Oil Phase Preparation

- In a separate vessel, melt Lauric Acid (8.00%), Myristic Acid (10.00%), and Stearic Acid (10.00%) at 75–80°C.
- Add Salicylic Acid (0.20%) and dissolve completely.
- Add PEGDS (1.50%) and BHT (0.10%), mix thoroughly.

Emulsification (Phase A + B)

- Slowly add the oil phase (Phase B) into the aqueous phase (Phase A) under high shear mixing.
- Maintain temperature at 75–80°C during emulsification.
- Continue mixing until a smooth, uniform emulsion is formed.

Phase C: Cooling & Collagen Addition

- Dissolve collagen(0.50%) in DM Water (4 %) at 45°C temperature.
- Add to the main batch when the temperature falls below 45°C, mix well.

Phase D: Final Additives

- Add Phenoxy Ethanol (0.50%), Vitamin E Acetate (0.10%), Snail Mucin (0.5%) and Fragrance Oil (0.30%) below 40°C.
- Mix gently and uniformly.
- Adjust pH to 5.5–6.5 with Citric Acid if needed.
- Filter (if required), then fill and pack.

Note: Appropriate testing for safety and compliance with cosmetic product regulations is recommended

Formulation-12

Advance SP 50++ Sunscreen Cream

Name	%	Remark
Phase A		
Stearic Acid	2	
Ginol-6820 (Emulsifying Wax)	4	
Butylated Hydroxy Toluene	0.1	
Cetyl Alcohol	1	
PEG-100 stearet	1	
Nestdry ST-2000	1	Manufacturer:

		Bionest Biochemical Technology Co. Ltd (Taiwan) Global Supplier : Unifect (UK)
Polysorbate -80	0.5	
Isopropyl Myristate	5	
Phase B		
DM Water	70	
Di-Sodium EDTA	0.1	
Allantoin	0.2	
Magnesium Carbonate	0.05	
Carbopol 980	0.4	
Sodium Hyaluronate	0.1	
Glycerine	2	
Phase C		
Suncat MTA	8	Manufacturer: Bionest Biochemical Technology Co. Ltd (Taiwan) Global Supplier : Unifect (UK)
DC-200	3	
Phase D		
Magnesium Ascorbyl Glucoside	1	
Niacinamide	2	
D-Panthenol	0.5	
All-rac-Alpha Tocopheryl Acetate	0.5	
Phase E		
Phenoxyethanol	0.5	
Ethyl Hexyl Glycerine	0.25	
Limonene	0.001	
Linalol	0.001	
Hexyl Cinnamal	0.001	
Fragrance	Qs	
Total	100	

✓ Manufacturing Procedure for Advance SP 5++ Sunscreen Cream

 Batch Size: As per production demand (scale proportionally)

◆ Phase A – Oil Phase Preparation

1. Take a clean and dry SS316 vessel, equipped with a mechanical stirrer and temperature control system.
2. Add **Stearic Acid**, **Cetyl Alcohol**, **PEG-100 Stearate**, **Ginol-6820**, **Polysorbate-80**, **Isopropyl Myristate**, and **Butylated Hydroxy Toluene (BHT)** one by one.
3. Begin heating slowly up to **75-80°C**, with continuous stirring until all ingredients are completely melted and uniform.
4. Add **Nestdry ST-2000** and mix until fully dispersed.
5. Maintain the temperature at **75°C** and keep it ready for emulsification.

◆ Phase B – Water Phase Preparation

1. In a separate SS316 vessel, add **DM Water**.
2. Begin heating up to **75°C**.
3. Add **Disodium EDTA**, **Allantoin**, **Magnesium Carbonate**, and **Glycerine** under stirring until dissolved completely.
4. Disperse **Carbopol 980** slowly into the hot water with high shear mixer to avoid lump formation.
5. Add **Sodium Hyaluronate** and mix until fully hydrated.

◆ Phase C – Active Sunscreen Phase

1. Pre-dissolve **Suncat MTA** in a portion of **DC-200** (Dimethicone) to form a uniform dispersion.
2. Ensure this blend is homogenous before adding to emulsion.
3. Keep this phase ready at room temperature.

◆ Phase D – Cooling and Finishing Phase

1. Once both Phase A and Phase B are at **75°C**, slowly add **Phase A (Oil Phase)** into **Phase B (Water Phase)** under **high shear stirring** (1000–1500 rpm).
2. Homogenize for 10-15 minutes, then switch to mechanical stirring and begin **cooling slowly** to **45°C**.
3. Add **Phase C (Suncat MTA + DC-200)** into the emulsion under gentle stirring.
4. When the temperature reaches **below 40°C**, add **Phenoxyethanol**, **Ethylhexylglycerine**, and **Fragrance**, followed by **Limonene**, **Linalool**, and **Hexyl Cinnamal**.
5. Adjust pH between **6.5 – 7.0** using NaOH or TEA solution if required.

- 6. Mix well until uniform cream consistency is achieved.
- 7. Perform QC tests (see below), then fill in pre-sanitized containers.

✓ QC Checklist (Quality Control)

Parameter	Standard	Test Method
Appearance	Smooth, creamy, white to off-white	Visual
Odor	Characteristic pleasant	Sensory
pH (1% in water)	6.5 – 7.0	pH meter
Viscosity (Brookfield)	25,000 – 35,000 cPs	Brookfield Viscometer
Emulsion stability	No phase separation at 40°C, 25°C, 5°C	Stability chamber (7 days min)
SPF (In vitro)	SPF > 50 with PA++++	Labsphere or ISO method
Microbial Test	< 100 CFU/g, No pathogens	Plate count method
Heavy Metals & Arsenic	Within acceptable limits	ICP-MS or relevant method

✓ Label Claims (Marketing & Legal)

Advance SP 5++ Sunscreen Cream

- Broad Spectrum UVA & UVB Protection (SPF 50+ PA++++)
- Enriched with **Suncat MTA** – Encapsulated Multi-UV Filters
- Lightweight, Non-greasy & Fast Absorbing
- Suitable for all skin types including sensitive skin
- Provides **12-Hour Photo-protection** with anti-pollution shield
- Infused with **Hyaluronic Acid & Allantoin** for Hydration & Soothing
- Water-Resistant & Sweat-Resistant Formula
- Dermatologically Tested | Paraben-Free | Cruelty-Free

✓ Packaging Guidelines

- Use **UV-protective opaque tubes or airless pump bottles**
- Fill and seal in **controlled, sanitized environment**
- Label must comply with **local regulatory authority** (e.g., DGDA in Bangladesh, CDSCO in India)

✓ Storage Instructions

- Store in a **cool, dry place** (15–25°C), away from direct sunlight.
- Shelf life: **24 months** in original sealed packaging.

Formulation-13

Nourishing Micellar Water

Name	%	Remark
H2O	90.40	
EDTA	0.02	
SLES 7%	5.42	
Peg-400	3.01	
Phenoxyethanol	0.20	
Sorbitol	0.20	
Tween-80	0.12	
CAPB	0.50	
Fragrance Royal Rose Aravi	0.05	
Total	100	

✓ Manufacturing Procedure (100 kg Batch)

Required Equipment and Conditions

- **Stainless Steel Mixing Tank** (200 L capacity, sanitary grade)
- **Agitator/Stirrer**: 50–150 rpm adjustable
- **Homogenizer** (optional for microemulsion/micelle refinement)
- **pH Meter, Thermometer**
- **Filtration Unit**: 0.45 µm or 5 µm membrane filter
- **Cleanroom Standard**: ISO Class 7 or 8; ambient temperature 25 ± 2 °C

Step-by-Step Manufacturing Procedure

1. Preparation

- Sanitize all equipment using 70% IPA or equivalent disinfectant.
- Ensure all ingredients and vessels are acclimated to room temperature (25 ± 2 °C).

2. Phase A – Base Preparation

1. Charge **90.40 kg of Distilled Water** into the main mixing tank.

2. Slowly add **0.02 kg of EDTA**, and mix at 100 rpm for about 5 minutes until fully dissolved.
3. Add **0.20 kg of Sorbitol**, stir gently for another 5–7 minutes to allow full hydration.
4. Incorporate **0.12 kg of Tween-80**, mix for 3–5 minutes at low speed to avoid foaming.

3. Phase B – Surfactant Phase

1. In a separate beaker, pre-blend **5.42 kg of SLES 7%** and **0.50 kg of CAPB**.
2. Slowly add the surfactant blend into Phase A while stirring at 50–70 rpm.
3. Add **3.01 kg of PEG-400** and continue stirring for another 5 minutes until fully homogenized.

4. Homogenization (Optional)

- If finer micelle formation is required, pass the batch through a **high-pressure homogenizer** at 500–1000 bar for 2–3 passes.

5. Phase C – Preservative & Fragrance

1. When the batch temperature drops below 30 °C, add **0.20 kg of Phenoxyethanol** and mix for 3 minutes.
2. Finally, add **0.05 kg of Royal Rose Aravi Fragrance**, stir gently for 3–5 minutes.

6. Quality Control Checks

Parameter	Specification
pH	: 5.0 – 5.5
Viscosity	: 50–150 cP (Brookfield LV, Spindle #2, 20 rpm)
Appearance	: Clear or slightly opalescent liquid
Microbial Count	: < 100 CFU/g, no pathogens (E. coli, P. aeruginosa, S. aureus)

7. Filtration and Packaging

- Filter the final product using a **0.45 µm or 5 µm filter** system.
- Fill into clean, pre-labeled containers immediately under hygienic conditions.
- Apply batch number, manufacturing date, and expiry date (shelf life: 24 months).

Notes:

- If excessive foaming occurs during processing, use **up to 0.1% silicone-based antifoam**.

- Maintain a production log and environmental records as per GMP guidelines.
- Store the finished product in a cool, dry place away from direct sunlight.

Formulation-14

AHA/BHA Based Gentle Aloevera Foming Face Wash

Name	%	Remark
Aqua	77	
Disodium EDTA	0.04	
Allantoin	0.1	
SLES 70%	8	
CAPB	1.53	
Glycerine	0.5	
Butylene Glycol	1	
PEG-400	1	
Hydrogenated Castor Oil	0.10	
Phenoxy Ethanol	0.025	
Ethyl Hexyl Glycerine	0.1	
Glycolic Acid	0.1	
Lactic Acid	0.1	
Aloevera leaf Juice	10	Freshly Prepared by steam distillation
Fragrance	0.05	
Total	100	

Manufacturing Procedure

Batch Size: 100 kg (Adjustable)

Product Type: Gentle, exfoliating face/body cleanser

Appearance: Clear to slightly hazy gel

pH Range: 4.5 – 5.5

Preservation: Phenoxyethanol + Ethylhexylglycerin system

◆ Phase-wise Ingredient Addition

Phase A: Aqueous Base Preparation

1. Take **77% Aqua (Purified Water)** in a **clean, stainless steel mixing vessel** equipped with a **propeller or anchor stirrer**.
2. Start stirring at **moderate speed** ($\approx 300\text{--}400$ RPM).
3. Add **Disodium EDTA (0.04%)**, **Allantoin (0.1%)** and stir until fully dissolved. This will help with chelation and product stability.
4. Add **Glycerine (0.5%)**, **Butylene Glycol (1%)**, and **PEG-400 (1%)** one by one, mixing well after each addition to ensure a homogeneous solution.

Phase B: Surfactant Addition

5. Slowly add **SLES 70% (8%)** to Phase A while stirring gently to avoid foaming. Mix until completely blended.
6. Then, add **Cocamidopropyl Betaine (CAPB) (1.53%)** as a co-surfactant to reduce irritation and improve foam texture.

Phase C: Conditioning & Skin-Friendly Additives

7. Add **Hydrogenated Castor Oil (0.1%)** to enhance skin softness and improve rinse feel.
8. Add the freshly **steam-distilled Aloe Vera Leaf Juice (10%)**. Ensure it's microbiologically safe and stabilized for cosmetic use.

Phase D: Preservatives & Actives

9. In a separate small beaker, premix:
 - **Phenoxyethanol (0.025%)**
 - **Ethylhexylglycerin (0.1%)**
 - **Glycolic Acid (0.1%)**
 - **Lactic Acid (0.1%)**
10. Add this premixed solution slowly to the main batch while stirring at low speed. These actives provide mild exfoliation and skin renewal benefits.

Phase E: Fragrance & Final Adjustment

11. Add **Fragrance (0.05%)**. Stir gently to avoid aeration.
12. Check the **pH** and adjust if necessary (target: 4.8–5.2). Use **citric acid or sodium hydroxide** solution for adjustments.
13. Continue stirring until the batch is uniform, clear/hazy, and visually stable.

✓ Quality Control Checklist

- **Appearance:** Clear to slightly hazy gel with no phase separation
- **pH:** 4.5–5.5
- **Viscosity:** Medium-thick (adjustable with Carbomer, Xanthan Gum or Sodium Chloride if needed)
- **Foam Test:** Should generate soft, stable foam

- **Microbial Test:** Must pass preservative efficacy test

Packaging Suggestion

- Suitable for tubes, flip-top bottles, or pump containers
- Recommended material: HDPE, PET, or airless dispensers

Formulation-15

AHA/BHA Based Gentle Mixed Fruit Foaming Face Wash

Name	%	Remark
Aqua	75	
Disodium EDTA	0.05	
Allantoin	0.1	
Salicylic Acid	0.1	
Sodium Bicarbonate	0.25	
Sodium Citrate	0.25	
1,3-Propane Diol	5	
SLES 70%	8	
Decayl Glucoside	1	
Sodium Cocoyl Glycinate	1	
CAPB	1	
Glycerine	0.5	
PEG-400	0.50	
Hydrogenated Castor Oil	0.10	
Ethyl Hexyl Glycering	0.05	
Phenoxy Ethanol	0.1	
Glycolic Acid	0.1	
Lactoc Acid	0.1	
Mixed Fruit Extract	6	Mango peel extract =2, Orange peel extract=2, Papaya peel extract=2
Color Orange	Qs	To match desired Color
Fragrance	Qs	

Batch Size: As required

Appearance: Transparent to Slightly Hazy Gel

pH: 5.0 – 5.5

Manufacturing Procedure

Phase A – Aqueous Phase Preparation

1. In a clean, sanitized SS mixing vessel, add **75% Aqua (Purified Water)**. Begin stirring with a mechanical stirrer at 200–300 rpm.
2. Add **0.05% Disodium EDTA** and stir until fully dissolved.
3. Slowly add **0.1% Allantoin** and continue mixing until a clear solution is obtained.
4. Add **0.1% Salicylic Acid** and allow it to disperse completely.
5. Add **0.25% Sodium Bicarbonate** and **0.25% Sodium Citrate** one by one to help buffer the pH. Stir well to ensure full dissolution.
6. Add **5% 1,3-Propane Diol** as a humectant and penetration enhancer. Mix thoroughly.

Phase B – Surfactant Phase Preparation

1. In a separate vessel, take the following ingredients:
 - **8% SLES 70%**
 - **1% Decyl Glucoside**
 - **1% Sodium Cocoyl Glycinate**
 - **1% Cocamidopropyl Betaine (CAPB)**Mix gently to avoid foam formation. Use a paddle mixer at low speed.
2. Slowly add **Phase B** into **Phase A** under continuous gentle stirring. Maintain temperature below 35°C.

Phase C – Moisturizers & Actives

1. Add the following one by one:
 - **0.5% Glycerine**
 - **0.5% PEG-400**
 - **0.10% Hydrogenated Castor Oil**
 - **0.05% Ethylhexylglycerin**
 - **0.1% Phenoxyethanol**
2. Ensure the mixture is homogenous.
3. Add exfoliating agents:
 - **0.1% Glycolic Acid**

- **0.1% Lactic Acid**
Adjust pH to 5.0–5.5 using mild citric acid or sodium hydroxide solution if necessary.

Phase D – Botanical Extract Blend

1. Add **6% Mixed Fruit Extract** (Mango Peel Extract 2%, Orange Peel Extract 2%, Papaya Peel Extract 2%). Mix slowly to evenly distribute the natural actives.

Phase E – Final Additions

1. Add **Color (Orange)** – Q.S. – to achieve desired visual appeal. Ensure it is cosmetic grade and water soluble.
2. Add **Fragrance** – Q.S. Mix thoroughly and gently to avoid foaming.
3. De-aerate the product if necessary by slow mixing under vacuum or by resting overnight.

Packaging

- Filter the product through a 100-micron mesh to remove any undissolved particles.
- Fill in pre-sanitized bottles/tubes using a piston filler or semi-auto filling machine.
- Seal, label, and store in a cool, dry place away from direct sunlight.

Notes:

- **Preservation:** Phenoxyethanol + Ethylhexylglycerin system is used to ensure broad-spectrum protection.
- **pH Sensitivity:** AHAs/BHAs are active at acidic pH. Always monitor final pH.
- **Stability Testing:** Conduct minimum 30-day stability at 5°C, RT, and 45°C before scale-up.

Formulation-16

Skin Brightening Emulsion Cream

Name	%	Remark
Phase A		

Stearic Acid	3	
Cetyl Alcohol	3	
Ginol 6820	4	
Bees Wax	0.70	
Liquid Paraffin	10	
Petroleum jelly	0.20	
EGDS	0.94	
Dimethicone	3	
Cyclopenta siloxane	2	
Phase B		
Aqua	50	
Boric Acid	0.45	
Titanium Dioxide	2	
Zinc Oxide	3	
Xhanthane Gum	0.22	
Tween-800	2.5	
Talcom Powder	3	
Triethanol Amine	0.6	
Phase C		
DM Water	5	
Sodium Hyaluronate	0.05	
Carbopol 940	0.1	
Phase D		
DM Water	1	
Acrylate Co Polymer	1	
Phase E		
Niacinamide	2	
Alpha Arbutin	2	
Glutathione	2	
All -rac-Alpha - Tocopheryl Acetate	0.6	
Phenoxyethanol	0.12	
Perfume Ponds	0.0015	
Perfume Oil of Ohlay	0.0015	
Total	100	

Manufacturing Procedure

Phase A – Oil Phase

All the ingredients of Phase A are weighed and added to a stainless steel vessel. Heat to 70–75°C with constant stirring until all materials are completely melted and a uniform oil phase is formed.

Phase B – Water Phase

In a separate vessel, add all Phase B ingredients and heat to 70–75°C. Mix thoroughly until a homogeneous solution is achieved without lumps.

Emulsification (Phase A + B)

Slowly add the heated water phase (Phase B) into the oil phase (Phase A) with continuous stirring.

Homogenize at high speed for 15–20 minutes until a smooth and consistent cream is formed.

Phase C

Add Na-Hya Mix Blend to the emulsified cream.

Mix using medium-speed stirring until fully incorporated.

Phase D

Prepare a pre-neutralized slurry of Carbopol 940 and Acrylate Co Polymer.

Add the slurry slowly into the main batch with gentle mixing.

Phase E – Cooling Phase

Cool the mixture to below 40°C.

Add Phenoxyethanol and Perfumes

Stir slowly until all components are evenly blended.

Final Steps

Check the viscosity and texture of the cream.

Fill into clean and sanitized containers.

Ensure final pH is between 5.5 – 6.5. Adjust if necessary using Triethanolamine or Citric Acid.

Formulation-17

Advance Shampoo For silky Shine Hair and Dandruff treatment

Name	%	Remark
Phase A		
Guar Hydroxypropyl Trimonium Chloride	0.25	
Disodium EDTA	0.05	
Polyquaternium-7	0.25	
DM Water	15	
Phase B		
DM Water	36	
Disodium EDTA	0.05	
Cetrimonium Chloride	0.5	
SLES 70%	16	
Phase C		
1,3 -Propane Diol	2	

Piractone olamine	0.25	
Phase D		
Climbazole	0.50	
Alpicare NS	0.50	
Phase E		
Liquid Pearl	2	
Phase F		
Carbopol 980	0.20	
DM Water	12	
Phase G		
Sodium Hydroxide	0.12	
DM Water	0.12	
Phase H		
Palm Karnael Diethanolamide	1.5	
CAPB	4	
Decyl Glucoside	1	
Lauryl Glucoside	1	
Phase I		
Xiameter-1788	3	
Hydrolysed Silk peptide	0.5	
Phase J		
Phenoxyethanol	0.5	
Methylchlorisothiazolinone	0.1	
Fragrance	Qs	
Phase K		
DM Water	3	
Sodium Chloride	1	
Total	100.00	



Manufacturing Procedure

Total Batch Size: 100%

◆ Phase A – Cationic Conditioning Base Preparation

1. **Into the main mixing tank, add:**
 - **DM Water (15%)** and start mixing at **500-600 rpm**.
 - Slowly add **Guar Hydroxypropyl Trimonium Chloride (0.25%)**, allow it to hydrate completely.
 - Add **Disodium EDTA (0.05%)** and **Polyquaternium-7 (0.25%)**, continue mixing until uniform.

◆ Phase B – Primary Surfactant Phase

2. In a separate vessel, pre-mix:
 - **DM Water (36%)**

- **Disodium EDTA (0.05%)**
 - Add **Cetrimonium Chloride (0.5%)** under stirring.
 - Slowly add **SLES 70% (16%)**, mix well to form a clear, homogenous blend.
3. Add **Phase B to Phase A** slowly under gentle stirring to avoid foaming.

◆ Phase C – Active Additives

4. Add the following ingredients to the mix one by one:
- **1,3-Propanediol (2%)**
 - **Piroctone Olamine (0.25%)** Continue mixing until fully dissolved.

◆ Phase D – Anti-Dandruff and Emollient Addition

5. Heat slightly (if needed) to dissolve and disperse:
- **Climbazole (0.5%)**
 - **PEG-7 Hydrogenated Castor Oil (0.5%)**

◆ Phase E – Optical Enhancer

6. Add **Liquid Pearl (2%)** slowly to give pearlescent effect. Mix gently.

◆ Phase F – Thickening Gel Base Preparation

7. In a separate vessel:
- Disperse **Carbopol 980 (0.2%)** in **DM Water (12%)** under high shear mixing.
 - Mix until a uniform gel is formed.

◆ Phase G – Neutralization

8. Neutralize the Carbopol gel using:
- **Sodium Hydroxide (0.12%)** dissolved in **DM Water (0.12%)**
 - Add slowly to Phase F until pH reaches **5.5–6.0**

◆ Phase H – Secondary Surfactants Addition

9. Add the following mild surfactants:
- **Palm Kernel Diethanolamide (1.5%)**
 - **Cocamidopropyl Betaine (CAPB) (4%)**
 - **Decyl Glucoside (1%)**
 - **Lauryl Glucoside (1%)**

Mix until a smooth blend is achieved.

◆ Phase I – Conditioning & Protein Care

10. Add:

- **Xiameter-1788 (Dimethicone Copolyol) (3%)**
- **Hydrolyzed Silk Peptide (0.5%)**

Mix gently to avoid bubble formation.

◆ Phase J – Preservatives & Fragrance

11. Cool the batch to below **40°C**, then add:

- **Phenoxyethanol (0.5%)**
- **Methylchloroisothiazolinone (0.1%)**
- **Fragrance (Qs – as required)**

Mix uniformly.

◆ Phase K – Final Adjustment

12. Add:

- **DM Water (3%)**
- **Sodium Chloride (1%)** slowly to adjust the final viscosity.

Check:

- pH: 5.5–6.5
- Viscosity: As per desired thickness
- Appearance: Pearlized, smooth, homogenous
- Stability: Minimum 3 months accelerated testing

✅ **Final Step:**

Pass the shampoo through **100 mesh filter**, then fill into containers under hygienic conditions.

Formulation -18

Glowing Rose Water Toner for soothing and refreshing

Name	%	Remark
Phase A		
DM Water	83	
Allantoin	0.25	
Rose Extract	15	
Phase B		
Alpicare NS	0.11	
Rose Essential Oil	0.01	
Phase C		
Phenoxyethanol	0.60	
Phase D		
1,3-Propane Diol	1	
Menthol	0.02	
Fragrance Sweet Rose	0.25	
Total	100.00	

Manufacturizing Procedure:

Batch Size: As required

Target pH: 5.5 – 6.0

Appearance: Clear, pink-tinted liquid (optional color), with a pleasant rose aroma

Packaging: Amber PET bottle or frosted glass with spray pump

Equipment Required:

- Stainless steel mixing vessel with overhead stirrer
- Precision balance
- pH meter
- Homogenizer (if available)
- Storage container (HDPE or SS grade)
- Temperature-controlled water bath (optional)

Manufacturing Steps:

Phase A: Aqueous Base Preparation

1. **Into a clean, sanitized mixing vessel**, add **83% DM Water**.
2. Start **gentle stirring at 200–300 rpm** and slowly sprinkle **Allantoin (0.25%)** into the water.
 - Mix continuously until fully dissolved.
 - Ensure no clumps remain (Allantoin may take time to dissolve).
3. Once Allantoin is fully dissolved, **add 15% Rose Extract** to the mixture.
 - Mix until uniform and slightly aromatic base is formed.

Phase B: Functional Actives

4. Pre-mix **Alpicare NS (0.11%)** and **Rose Essential Oil (0.01%)** together in a small beaker.
 - Slowly add this blend into Phase A with **medium stirring (400–500 rpm)**.

- Continue mixing for 5–7 minutes to ensure uniform dispersion.

Phase C: Preservation

- 5. Add **Phenoxyethanol (0.60%)** directly to the main batch while stirring.
 - Mix well for 5 minutes to ensure proper preservation.

Phase D: Cooling & Final Additives

- 6. Once the solution is at **room temperature (25–30°C)**, add:
 - **1,3-Propanediol (1%)** for humectancy and skin feel
 - **Menthol (0.02%)** for a cooling, refreshing sensation
 - **Fragrance – Sweet Rose (0.25%)** to enhance scent profile
- 7. Mix gently to avoid foaming.

Finishing Steps:

- 8. **Check and adjust pH** if necessary (ideal: 5.5–6.0). Use citric acid or sodium hydroxide solution as needed.
- 9. Filter the solution (if needed) using a 5-micron filter to ensure clarity.
- 10. Transfer to **sterile, air-tight packaging** under hygienic conditions.

Storage & Shelf Life:

- Store in a cool, dry place, away from direct sunlight.
- Shelf life: **18–24 months** under optimal storage conditions.

Formulation -19

Silky Shine Smooth Hair Repair Shampoo

Name	%	Remark
Phasr A		
Guar Hydroxypropyl Trimonium Chloride	0.25	
Disodium EDTA	0.05	
DM Water	15	
Polyquaternim -7	0.02	
Phase B		
DM Water	35	
Disodium EDTA	0.05	

Cetrimonium Chloride	0.25	
SLES 70%	18	
Phase C		
Liquid Pearl	2	
Phase D		
Carbopol 980	0.20	
DM Water	10	
Phase E		
Sodium Hydroxide	0.10	
DM Water	0.10	
Phase F		
CDEA	1.5	
CAPB	4	
Decyl Glucoside	1	
Phase G		
Xiameter-1788	3	
Xiameter-1689	1	
Phase H		
Hydrolised Silk	1.5	
Hydrolised Keratein	1.5	
Phase I		
Phenoxyethanol	0.4	
Methylchloroisothiazolinone	0.1	
Fragrance	Qs	
Phase J		
DM Water	3	
Sodium Chloride	1	
Total	100.00	

Manufacturing Procedure

Equipment Required:

- SS Mixing Vessel with Anchor Stirrer & Homogenizer
- Overhead Stirrer
- Heating and Cooling System
- pH Meter
- Viscosity Meter
- Filtering System

Manufacturing Steps:

Step 1: Preparation of Phase A (Cationic Conditioning Base)

1. In the main SS vessel, take **15% DM Water** and start stirring slowly.
2. Add **Disodium EDTA (0.05%)**, allow it to dissolve completely.
3. Then add **Guar Hydroxypropyl Trimonium Chloride (0.25%)** and **Polyquaternium-7 (0.02%)**.
4. Continue stirring until a clear and uniform solution is obtained.

✓ *Step 2: Preparation of Phase B (Surfactant Base)*

1. In a separate vessel, take **35% DM Water**.
2. Add **Disodium EDTA (0.05%)** and dissolve fully.
3. Add **SLES 70% (18%)** slowly under gentle stirring to avoid excessive foaming.
4. Then add **Cetrimonium Chloride (0.25%)** and mix well.

✓ *Step 3: Combine Phase A & Phase B*

1. Slowly add Phase B into Phase A under moderate stirring.
2. Mix until a homogeneous blend is achieved.

✓ *Step 4: Add Phase C (Pearlizing Agent)*

1. Add **Liquid Pearl (2%)** to the main batch under continuous stirring.
2. Mix until pearly and uniform appearance develops.

✓ *Step 5: Preparation of Phase D (Thickener Pre-Dispersion)*

1. In a separate container, disperse **Carbopol 980 (0.2%)** into **10% DM Water** slowly.
2. Stir well and allow complete hydration (30–45 mins).

✓ *Step 6: Add Phase D to Main Batch*

1. Slowly add hydrated Carbopol solution (Phase D) into the main vessel.
2. Stir well until thickening is observed.

✓ *Step 7: Neutralization – Phase E*

1. Prepare a solution of **Sodium Hydroxide (0.10%)** in **0.10% DM Water**.
2. Slowly add to the batch while monitoring pH.
3. Adjust final pH to **5.5 – 6.0**.

✓ *Step 8: Add Phase F (Secondary Surfactants & Mild Cleanser)*

1. Add the following ingredients one by one under stirring:
 - **CDEA (1.5%)**
 - **CAPB (4%)**
 - **Decyl Glucoside (1%)**
2. Stir until a uniform blend is obtained.

✓ *Step 9: Add Phase G (Conditioning Silicones)*

1. Add **Xiameter-1788 (3%)** and **Xiameter-1689 (1%)** slowly.
2. Use a high-shear mixer briefly if required to disperse silicones properly.

✓ *Step 10: Add Phase H (Protein Additives)*

1. Add:
 - **Hydrolyzed Silk Protein (1.5%)**
 - **Hydrolyzed Keratin (1.5%)**
2. Mix gently to avoid foaming.

✓ *Step 11: Add Phase I (Preservatives & Fragrance)*

1. Add the following ingredients:
 - **Phenoxyethanol (0.4%)**
 - **Methylchloroisothiazolinone (0.1%)**
2. **Fragrance (qs)** Stir well until all are uniformly blended.

✓ *Step 12: Final Adjustment – Phase (Viscosity and Salt Adjustment)*

1. Dissolve **Sodium Chloride (1 in 3% DM Water.**
2. Add slowly to the main batch to adjust viscosity as per desired thickness.

✓ *Step 13: Final Check & Packing*

1. Check **pH (Target: 5.5–6.0)** and **viscosity**.
2. Filter the product to remove undissolved particles (if any).
3. Fill in clean, sterilized containers.

 Storage Conditions:

- Store in cool, dry place.
- Avoid direct sunlight.
- Use airtight packaging to maintain stability.

Formulation -20

Advance Calming Lavender Shower Gel

Name	%	Remark
Phase A		
DM Water	60	
EDTA-Di Sodium	0.10	
1,3 -Propane Diol	2	

Butylene Glycol	1	
SLES 70%	18.00	
Phase B		
Palm Karna Diethanolamide	2.00	
Cocamidopropyl Betaine	3.00	
Lauryl Glucoside	2.00	
PEG-7 Hydrogenated Castor oil	0.5	
Sodium Cocoyl glycinate	2.00	
Phase C		
Sorbitol	2.00	
Glycerine		
D-Panthenol	0.5	
Sodium PCA	2.00	
Phase D		
Phenoxyethanol	0.50	
Phase E		
Fragrance Lavender	0.10	
Limonene	0.01	
Linloul	0.01	
Hexyl Cinnamal	0.01	
Phase F	1.00	
Color red	Qs	To match desired lavender flower color
Color Violet	Qs	To match desired lavender color
Phase G	Qs	
DM Water	1.50	
NaCl	0.50	
Total	100.00	

Manufacturing Procedure:

Batch Size: 100 kg (adjust proportionally for other sizes)

Equipment Required:

- Stainless steel mixing vessel (jacketed if heating required)
- Overhead stirrer or homogenizer
- pH meter
- Thermometer
- Heating & cooling system
- Measuring cylinders, beakers, and weighing scale

Step-by-Step Manufacturing Process:

⚙️ *Step 1: Preparation of Phase A (Aqueous Base)*

1. Into the main mixing vessel, add **60% DM Water**.
2. Start stirring at **moderate speed (300–500 rpm)**.
3. Add **EDTA-Disodium (0.10%)** and mix until fully dissolved.
4. Add **1,3-Propanediol (2%)** and **Butylene Glycol (1%)** one by one under continuous stirring.
5. Slowly add **SLES 70% (18%)** into the mixture while maintaining stirring to prevent foam generation.

⚙️ *Step 2: Addition of Phase B (Surfactant Blend)*

6. In a separate container, pre-mix **Palm Kernel Diethanolamide (2%)**, **Cocamidopropyl Betaine (3%)**, and **Disodium Lauryl Sulfate (1%)**.
7. Slowly add this Phase B mixture into the main vessel with gentle mixing to avoid excessive foaming.
8. Mix until homogeneous.

⚙️ *Step 3: Addition of Phase C (Moisturizers & Actives)*

9. Add **Sorbitol (2%)**, **Glycerine (as per required)**, **D-Panthenol (0.5%)**, and **Sodium PCA (2%)** into the mixture.
10. Stir continuously until all ingredients are completely dissolved and evenly dispersed.

⚙️ *Step 4: Addition of Preservative (Phase D)*

11. Add **Phenoxyethanol (0.5%)** directly into the batch under slow stirring.

⚙️ *Step 5: Addition of Fragrance (Phase E)*

12. Add **Fragrance Lavender (0.10%)**.
13. Add **Limonene (0.01%)**, **Linalool (0.01%)**, and **Hexyl Cinnamal (0.01%)** carefully and mix well.

⚙️ *Step 6: Color Adjustment (Phase F)*

14. Prepare colorants separately in water and add **Color Red & Violet Q.S.** to the batch until desired shade is achieved.

⚙️ *Step 7: Viscosity Adjustment (Phase G)*

15. In a small beaker, dissolve **NaCl (0.50%)** in **1.5% DM Water** to make a salt solution.
16. Add this salt solution **slowly and gradually** into the main batch to adjust viscosity. Monitor thickness.
17. Stir gently to avoid foaming. Final viscosity should be checked after 15–30 minutes of rest.

✓ Final Checks:

- pH: Adjust if necessary to 5.0–5.5 using **citric acid or sodium hydroxide**.
- Viscosity: Should be medium to thick flowable gel.
- Appearance: Clear to pearly (if desired), with uniform color.
- Odor: Pleasant and balanced lavender aroma.
- Conduct microbial & stability tests before packaging.

📦 Packaging Instructions:

- Transfer the finished product into clean, sterilized containers.
- Use laminated or HDPE bottles with flip-top or pump caps.
- Label with batch number, MFG & EXP dates, and storage conditions.

Formulation-21

Advance Calming Rose Shower Gel

Name	%	Remark
Phase A		
DM Water	60	
DSEDTA	0.1	
Butylene Glycol	2	
SLES70%	18	
Phase B		
Cocodiethanolamide	2	
Cocamido propyl Betain	3	
Liquid Pearl	3	
Lauryl Glucoside	2	
Sodium lauryl Sercocinate	1	
Phase C		
Sorbitol	2	

D-Panthenol	0.5	
Glycerine	0.5	
Sodium PCA	2	
Phase D		
Phenoxy Ethanol	0.5	
Phase E		
Limonene	0.01	
Linalool	0.01	
Hexyl Cinnamal	0.01	
Fragrance (Sweet Rose)	0.5 or Qs	
Phase F		
Color pink Rose (Water Soluble cosmetic grade)	Qs	To match desired color
Phase G		
DM Water	1.5	
NaCl	0.5	
Total	100	

Manufacturing Procedure

Step 1: Phase A – Aqueous Phase

- In a clean SS mixing vessel, add 61.29% DM Water and start slow stirring.
- Add 0.1% DSEDTA and mix until fully dissolved.
- Slowly add 19% SLES (70%) under moderate stirring. Mix until clear and uniform.

Step 2: Phase B – Secondary Surfactants & Additives

- Add 2% CDEA, 3% CAPB, 3% Liquid Pearl, 2% Ecosense-12, and 2% Sodium Cocoyl Glycinate.
- Mix until homogeneous and transfer to Phase A with continuous stirring.

Step 3: Phase C – Humectant & Conditioner

- Add 2% Sorbitol and 2% Ajedwe NL-50 to the main batch.
- Mix thoroughly until uniform.

Step 4: Phase D – Preservative

- Add 0.5% DMDM Hydantoin and stir well.

Step 5: Phase E – UV Filter & Fragrance

- Add 0.1% Benzophenone-3 and 1% Royal Rose Arabi Fragrance.
- Stir gently to avoid fragrance loss.

Step 6: Phase F – Silicone Additive

- Add 0.01% DC-193 slowly with low stirring.
- Ensure even distribution.

Step 7: Phase G – Final Adjustments

- Dissolve 0.5% NaCl in 1.5% DM Water separately.
- Add to the main batch slowly and stir continuously.
- Adjust viscosity and check pH (target: 5.5–6.5).

Final Step

- Let the batch stand to remove air bubbles.
- Filter if required and fill under hygienic conditions.

Formulation -22

AHA/BHA Based Rose Water Toner

Name	%	Remark
Phase A		
DM Water	90	
Di-Sodium EDTA	0.10	

Allantoin	0.25	
Lactic Acid	0.05	
Glycolic Acid	0.05	
Niacinamide	0.10	
Rose Hydrosol	10.00	
Phase B		
Glycerine	2.00	
Phase C		
Alpucare NS	0.2	
Rose Essential Oil	0.05	
Fragrance Sweet rose	0.05	
Phase D		
Phenoxyethanol	0.40	
Total	100	



Key Benefits Summary:

- 🌟 **Gentle Exfoliation** – Lactic & Glycolic Acid smooth and renew the skin
- 💧 **Deep Hydration** – Glycerin and Rose Hydrosol lock in moisture
- 🌿 **Soothing & Calming** – Allantoin and Rose Hydrosol reduce irritation
- 🌟 **Brightening Effect** – Niacinamide evens skin tone and boosts radiance
- 🛡️ **Antioxidant Support** – Rose Essential Oil helps protect the skin barrier
- 🧴 **Balanced Formula** – Alcohol-free, mild, and suitable for all skin types

Let me know if you'd like a **tagline**, **label content**, or **marketing description** based on this

Manufacturing Procedure

 **Batch Type:** Aqueous Solution

 **Equipment Needed:**

- Stainless steel mixing tank with stirrer (or overhead stirrer)
- pH meter
- Digital thermometer
- Dropper or precision scale for active/essential oils
- Homogenizer (if available, optional)

 **Step-by-Step Procedure:**

1. Phase A – Water Phase Preparation

1. Take **90% DM Water** into the main mixing vessel.
2. Start mixing gently (300–500 rpm).
3. Slowly add **Disodium EDTA (0.10%)** and mix until fully dissolved.
4. Add **Allantoin (0.25%)** slowly while stirring. Stir until it's fully dissolved and no particles remain (warm slightly if needed to help dissolve, max 40–45°C).
5. Add **Lactic Acid (0.05%)** and **Glycolic Acid (0.05%)**, stir well.
6. Add **Niacinamide (0.10%)**, stir until completely dissolved.
7. Add **Rose Hydrosol (10%)** and continue mixing for uniform blend.

2. Phase B – Humectant Phase

8. In a separate beaker, take **Glycerine (2%)**.
9. Add it slowly to the Phase A mixture while stirring to avoid lumps and ensure homogeneity.

3. Phase C – Active & Fragrance Phase

10. Add **Alpucare NS (0.2%)** directly into the batch under continuous stirring.
11. Add **Rose Essential Oil (0.05%)** and **Fragrance (Sweet Rose, 0.05%)**.
12. Mix gently until a uniform solution is formed. You may pre-mix EO + fragrance in a little glycerine to ensure proper dispersion.

4. Phase D – Preservation

13. Add **Phenoxyethanol (0.40%)** and stir for 10–15 minutes.

Final Check & Adjustments

- **pH Adjustment:** Check pH. Should be between **4.5–5.5**. Adjust using **citric acid solution** or **sodium hydroxide solution** if needed.

- **Appearance:** Clear or slightly hazy depending on rose hydrosol and essential oil.
- **Stability:** Ensure no phase separation or sedimentation after 24 hours.

 Filling & Storage

- Filter (if needed) and fill into **sterile, amber, or frosted bottles**.
- Store in a **cool, dry place**, away from direct sunlight.

Formulation-23

Hair Oil (Type-3)

Name	%	Remark
LLP	79	
Argan Oil	5.00	
Castor Oil	0.10	
Almond Oil	0.20	
Olive Oil	3.00	
Jojoba Oil	1.00	
Coconut Oil	5.00	
Sunflower Oil	2.00	
Sesame Oil	2.00	
BHT	0.10	
Onion Extract	1.00	
All -rac-Alpha Tocopheryl Acitate	0.10	
Total	100.00	

Manufacturing Procedure

1. Ensure all equipment is clean, dry, and calibrated as per SOP.
2. In a clean stainless steel vessel, add Light Liquid Paraffin (LLP) and start slow stirring (30–50 rpm).

3. Add Argan Oil, Castor Oil, Almond Oil, Olive Oil, Jojoba Oil, Coconut Oil, Sunflower Oil, and Sesame Oil sequentially with continuous stirring.
4. Add BHT (0.10%) and mix until completely dissolved.
5. Add Vitamin E Acetate (0.10%) and stir well.
6. Add Onion Extract (1.00%) and mix until uniformly dispersed.
7. Increase stirring speed to 100–150 rpm and mix for 20–30 minutes for uniform blending.
8. Filter the final mixture through a 100–120 mesh filter to remove any particulates.
9. Fill into containers (glass or PET bottles) under hygienic conditions.
10. Cap, label, and store in a cool, dry place away from direct sunlight.

Formulation-24

AHA/ BHA Based gentle Tea Tree Face Toner

Benefits / Claims of Advance Whitening Cream

1. **Advanced Skin Brightening**
Niacinamide, Alpha Arbutin, and Glutathione work together to reduce dark spots, pigmentation, and uneven tone.
2. **Deep Hydration & Moisture Lock**
Sodium Hyaluronate, Glycerin, and Propylene Glycol deliver long-lasting hydration for soft, dewy skin.
3. **UV Protection Support**
Micronized Titanium Dioxide offers mild physical sun protection to prevent further discoloration.
4. **Skin Soothing & Repairing**
Allantoin, Aloe Vera, Calendula, and Centella Extract calm irritation, heal microdamage, and support barrier repair.
5. **Anti-Oxidant & Anti-Aging Care**
Glutathione, Vitamin E, and botanical extracts protect skin from oxidative damage and environmental stress.
6. **Even Texture & Smooth Finish**
Emollients like Dimethicone, Liquid Paraffin, and Shea Butter provide a silky, smooth, non-greasy feel.
7. **Gentle Exfoliation & pH Balance**
Citric Acid and Boric Acid mildly exfoliate dead cells and balance the skin's pH for optimal brightness.

8. **Lightweight & Dermatologically Balanced**

Fast-absorbing, suitable for all skin types – especially effective for dull, pigmented, and uneven skin.

Optional Tagline:

✨ *“Brighten boldly. Repair gently. Glow naturally – with every use.”*

Name	%	Remark
Phase A		
DM Water	95.8	
DiSodium EDTA	0.1	
Niacinamide	1	
Allantoin	0.1	
Salicylic Acid	0.1	
Lactic Acid	0.1	
Glycolic Acid	0.1	
Phase B		
Triethanolamine	Qs	
Phase C		
Tea Tree Extract	0.15	
Phase D		
Tea Tree Ess. oil	0.02	
Alpicare NS	0.1	
Phase E		
Phenoxyethanol	0.4	
Total	100.00	

Tea Tree Toner Manufacturing Procedure

Batch Size: 100 kg (can be scaled)

Type: Water-based exfoliating toner with Tea Tree

Packaging pH range: 4.5 – 5.5

Appearance: Clear to slightly hazy liquid

Preservation: Phenoxyethanol

Phase-wise Procedure

Phase A – Aqueous Actives

1. Start by preparing Phase A:

- Take a clean stainless steel mixing tank.
- Add **DM Water** (95.8%) and begin mixing at 500–700 rpm.
- Gradually add **Disodium EDTA (0.1%)** and allow it to fully dissolve.
- Add the following ingredients **one by one**, mixing well after each addition:
 - **Niacinamide – 1.0%**
 - **Allantoin – 0.1%**
 - **Salicylic Acid – 0.1%**
 - **Lactic Acid – 0.1%**
 - **Glycolic Acid – 0.1%**

2. **Note:** Maintain temperature **below 40°C** to prevent degradation of active acids and niacinamide.

Phase B – pH Adjustment

3. Slowly add **Triethanolamine (TEA)** drop by drop (**q.s.**) to adjust the pH to the desired level (ideally around 4.8–5.2).
- Use a calibrated pH meter.
 - Be careful not to over-neutralize—pH is critical for exfoliating action.

Phase C – Botanical Extract

4. Add **Tea Tree Extract – 0.15%** to the mix under gentle stirring.

Phase D – Essential Oil & Specialty Additive

5. Add the following ingredients under **slow stirring** (300–500 rpm):
- **Tea Tree Essential Oil – 0.02%**
 - **Alpicare NS – 0.10%**

Ensure homogeneity by mixing for 10–15 minutes.

Phase E – Preservation

6. Add **Phenoxyethanol – 0.40%** as a preservative and stir gently until uniform.

Final Steps

- 7. **Check Parameters:**
 - **Appearance:** Clear to slightly hazy solution.
 - **Odor:** Mild herbal with a tea tree note.
 - **pH:** 4.5–5.5 (adjust if necessary).
 - **Viscosity:** Low (watery).
- 8. **Filtration (optional):**
 - If clarity is important, filter through a 5-micron filter before filling.
- 9. **Filling & Packaging:**
 - Fill into **sterile, amber PET or HDPE spray bottles** or toner bottles.
 - Avoid direct sunlight exposure during storage and shipping.

 Storage Condition:

Store at **cool, dry place (15–25°C)** away from direct sunlight.

Formulation-25

Advance Daily Facewash for Acne Control

Name	%	Remark
Phase A		
DM Water	47.00	
Di Sodium EDTA	0.10	
Titanium Dioxide	0.001	
Allantoin	0.2	
Phase B		
Aculyn Excel	5	
DM Water	4	
CAPB	0.80	
CDEA	9.5	
Phase C		
KOH	3.00	
Water	5.50	
Phase D		
Myristic Acid	4.50	
Plamitic Acid	4.50	
Stearic Acid	1.50	

Lauric Acid	4.00	
Glycol Distearate	2.00	
Butylated Hydroxytoluene	0.10	
Phase E		
1,3-Propane Diol	1.30	
Salicylic Acid	0.25	
Sodium Bicarbonate	0.30	
Sodium Citrate	0.25	
Sodium Hyaluronate	0.02	
Carbopol Ultrez-20	0.1	
Glycerine	1.5	
DM Water	3	
Phase F		
Potassium Cocoyl glycinate	1.10	
All -rac-Alpha Tocopheryl Acetate	0.20	
Phase G		
Matcha leaf Extract	0.20	
Neem liquid Extract	0.30	
Levender Oil	0.10	
Phenoxyethanol	0.40	
Ethyl Hexyl Glycerine	0.25	
Total	100.150	

Manufacturing Procedure

Equipment Required:

- SS Mixing Vessel with Heating Jacket
- Overhead Stirrer or Homogenizer
- pH Meter
- Thermometer
- Beaker & Stirring Rods
- Digital Weighing Scale

Phase-wise Manufacturing Process

Phase A: Aqueous Base Preparation

1. **In a main mixing vessel, add DM Water (47.00%).**
2. Start stirring at moderate speed (300–500 rpm).
3. Add **Di Sodium EDTA (0.10%)**, stir until dissolved.

4. Add **Titanium Dioxide (0.001%)** slowly with high shear (if needed).
5. Add **Allantoin (0.20%)**, continue mixing until fully dissolved.
6. Heat to **70–75°C** to assist dispersion.

◆ *Phase B: Thickener + Surfactant Gel*

1. In a separate vessel, add **DM Water (4%)**.
2. Disperse **Aculyn Excel (5%)** into the water and stir to uniform gel.
3. Add **CAPB (0.80%)** and **CDEA (9.5%)**, mix gently.
4. Transfer Phase B into Phase A under continuous stirring. Maintain temperature at 70°C.

◆ *Phase C: Alkali Solution (Saponification Support)*

1. In a beaker, dissolve **KOH (3.00%)** in **DM Water (5.50%)**.
2. Slowly add the KOH solution into the main batch (Phase A+B) while stirring.
3. Monitor pH (should rise between 8.0–9.0 initially).

◆ *Phase D: Fatty Acids Melt Phase*

1. In another vessel, combine and melt together:
 - **Myristic Acid (4.50%)**
 - **Palmitic Acid (4.50%)**
 - **Stearic Acid (1.50%)**
 - **Lauric Acid (4.00%)**
 - **Glycol Distearate (2.00%)**
 - **BHT (0.10%)**
2. Heat to **75–80°C** until fully melted.
3. Slowly add this hot phase into the main batch with homogenization for emulsification.

◆ *Phase E: Active Additives & Hydration Support*

1. Pre-mix the following in a beaker:
 - **1,3 Propanediol (1.30%)**
 - **Salicylic Acid (0.25%)**
 - **Sodium Bicarbonate (0.30%)**
 - **Sodium Citrate (0.25%)**
 - **Sodium Hyaluronate (0.02%)**
 - **Glycerin (1.5%)**
 - **Carbopol Ultrez-20 (0.10%)**
 - **DM Water (3%)**
2. Ensure full dissolution and gel formation.
3. Add to the main batch below 45°C to preserve actives.

◆ Phase F: Mild Surfactant + Antioxidant

1. Add directly into the batch under gentle mixing:
 - Potassium Cocoyl Glycinate (1.10%)
 - All-rac-Alpha Tocopheryl Acetate (0.20%)

◆ Phase G: Botanical Extracts + Preservatives + Fragrance

1. At <40°C, add:
 - Matcha Leaf Extract (0.20%)
 - Neem Liquid Extract (0.30%)
 - Lavender Oil (0.10%)
 - Phenoxyethanol (0.40%)
 - Ethylhexylglycerin (0.25%)

⚙ Final Steps

- Homogenize batch for **5–10 minutes** until smooth and uniform.
- Adjust **pH to 5.5–6.0** using **Citric Acid or NaOH solution** as needed.
- Cool to room temperature (~25°C).
- Check viscosity, pH, and appearance.
- Fill into clean, sterile containers.

📋 Quality Control Checks

Parameter	Specification
Appearance	Pearly white/cream gel
pH (25°C)	5.5–6.0
Viscosity	10,000–20,000 cP (as needed)
Microbial Load	Within acceptable limits
Stability Test	45°C, RT, 5°C – 30 days

Formulation-26

Advance Daily Face Wash for oil Control

Name	%	Remark
Phase A		
DM Water	46.10	
Di-Sodium EDTA	0.10	
Glycerin	1.50	
Allantoin	0.20	
CDEA	9.50	
Phase B		
Aculyn Excel	5.50	
DM Water	4.50	
CAPB	0.80	
Phase C		
DM Water	5.20	
KOH	2.70	
Phase D		
Myristic Acid	5.00	
Stearic Acid	5.50	
Lauric Acid	4.50	
Glycol Ditearate	2.0p	
Salicylic Acid	0.50	
Butylated Hydroxytoluene	0.10	
Phase E		
PG	1.30	
Niacinamid	0.80	
DM Water	2.00	
Phase F		
Potassium Cocoyl glycinate	1.00	
Opulyn 301	0.20	
Tocopheryl Acitate(Vit-E	0.20	
Phase G		
Lemon Extract	0.30	
Fragrance (Lemon Sparkle	0.10	
Phenoxyethanol	0.40	
Total	100.000	

Manufacturing Procedure (Smart SOP)

Equipment Required:

- Stainless Steel Jacketed Reactor with Agitator
- High-shear Mixer (if available)
- pH Meter
- Heating and Cooling System

- Weighing Scale
- Storage Tanks

✓ Procedure Steps (Phase-wise)

Phase A – Water Soluble Pre-mix

1. In the main reactor, add **DM Water (46.10%)** and begin mixing.
2. Add **Disodium EDTA (0.10%)** and mix until dissolved.
3. Add **Glycerin (1.50%)**, mix for 5 minutes.
4. Add **Allantoin (0.20%)** slowly, continue stirring until fully dissolved.
5. Add **CDEA (9.50%)**, continue mixing until uniform and clear.

→ Keep the mixture under continuous stirring at ambient temperature.

Phase B – Polymer Thickener Pre-Dispersion

1. In a separate mixing vessel, combine:
 - **Aculyn Excel (5.50%)**
 - **DM Water (4.50%)**
 - **CAPB (0.80%)**
2. Stir until the thickener is fully hydrated and homogenous.

→ Add Phase B to Phase A slowly under moderate stirring.

Phase C – Alkali Solution Preparation

1. Dissolve **KOH (2.70%)** in **DM Water (5.20%)** under stirring.
2. Slowly add the alkali solution (Phase C) into the main batch to begin neutralization and saponification.

→ Maintain temperature at ~50–60°C to support the emulsification of fatty acids in the next phase.

Phase D – Fatty Acid & Active Blend

1. Melt together:
 - **Myristic Acid (5.00%)**
 - **Stearic Acid (5.50%)**
 - **Lauric Acid (4.50%)**
 - **Glycol Distearate (2.00%)**
2. Add to the main batch slowly while maintaining 60–70°C.
3. Add **Salicylic Acid (0.50%)** and **BHT (0.10%)** under stirring.

 Continue stirring for 15–20 minutes until the mixture is completely homogenous.

Phase E – Water-Soluble Actives

1. Pre-mix:
 - **Propylene Glycol (1.30%)**
 - **Niacinamide (0.80%)**
 - **DM Water (2.00%)**
2. Add to the main batch under slow stirring.

Phase F – Mild Surfactants & Additives

1. Add the following one by one:
 - **Potassium Cocoyl Glycinate (1.00%)**
 - **Opulyn 301 (0.20%)**
 - **Tocopheryl Acetate (0.20%)**
2. Mix until the formula is smooth and clear.

Phase G – Cooling & Finishing Additives

1. Cool the batch to below 40°C.
2. Add:
 - **Lemon Extract (0.30%)**
 - **Fragrance – Lemon Sparkle (0.10%)**
 - **Phenoxyethanol (0.40%)**
3. Mix gently for 10–15 minutes.

Final Adjustments

- **Check pH:** Should be between 5.5 – 6.5.
- **Adjust viscosity** if needed using Aculyn Excel or NaCl (in minimal amount).
- Ensure **no lumps**, air bubbles, or phase separation.

Filling & Storage

- Transfer to bulk storage or fill into clean, sterilized packaging units.
- Store in a cool, dry place (< 30°C), away from direct sunlight.

Formulation-27

Neem Daily Face Wash

Name	%	Remark
Aqua	55	
EDTA	0.05	
PPS	0.1	
Phenoxyethanol	0.05	
SLES	12	
Boric Acid	0.25	
Triethanolamine	0.5	
Potassium Hydroxide	0.24	
Carbopol U-20	0.25	
Fine Gum	0.15	
Glycerine	2	
1,3-Propane Diol	1	
CAPB	1.2078038	
PKDEA	0.19464953	
Sodium Chloride	3.94290081	
Citric Acid	0.12976636	
Neem leaf Extract	10	
Aqua	10	
Salicylic Acid	0.05	
Propylene Glycol	2	
Sodium Bicarbonate	0.3	
Sodium Citrate	0.25	
Fragrance	0.1	
Total	100	

Manufacturing Procedure

Below is the professional and concise manufacturing procedure for Gel Face Wash based on the provided formulation:

1. Water Phase Preparation

- Take the measured quantity of Aqua (Distilled Water) in a clean mixing vessel.
- Add EDTA, PPS, Phenoxyethanol, Boric Acid, Citric Acid, Glycerin, and 1,3-Propane Diol, sequentially while stirring until dissolved.

2. Surfactant Phase Preparation

- In a separate vessel, mix SLES, CAPB, and PKDEA until a clear blend is obtained with slight foaming.
- Slowly add this mixture to the water phase while stirring continuously.

3. Gel Formation

- Sprinkle Carbopol U-20 and Fine Gum slowly into the main mix while stirring to avoid lumps.
- Continue mixing until the gel starts forming.

4.Active Addition

Make a premix of Salicylic Acid, Sodium Bicarbonate, Sodium Citrate and Propylene Glycol and add with main mixing vessel with water

4. pH Adjustment

- Add Triethanolamine and Potassium Hydroxide gradually to adjust the pH to 5.5–6.5.
- This also helps in proper gel formation and stability.

5. Final Additions

- Add Sodium Chloride gradually to increase viscosity.
- Finally, add Plant Extract and mix gently.

6. Finishing

- Allow the mixture to settle for deaeration or use a vacuum deaerator.
- Fill into appropriate containers and label.

Formulation-28

Deep Hydrating Body Lotion

Name	%	Remark
Oil Phase		
Phase A		
Stearic Acid	4	
Cetyl Alcohol	1.5	
Emulsifying Wax (Ginol 6820)	4	
Liquid Paraffin	2	
Dimethicone	1	
Cyclopentasiloxane	1	
Water Phase		
Phase B		
Aqua	80	
Disodium EDTA	0.05	

Glycerin	0.5	
Citric Acid	0.15	
1,3-Propane Diol	1	
Potassium Hydroxide	0.271	
Triethanolamine	1.45	
Titanium Oxide	0.08	
Boric Acid	0.4	
Magnesium Carbonate	0.1	
Telcom Powder	0.1	
Phase C		
Aqua	2	
Carbopol ultrez-20	0.02	
Sodium Hyaluronate	0.02	
Phase D		
D-Panthenol	0.5	
All-rac-Alpha Tocopheryl Acetate	0.5	
Phase E		
Phenoxyethanol	0.4	
Ethyl Hexyl Glycerine	0.25	
Phase F		
Perfume	0.1-0.5	

Manufacturing Procedure (Smart SOP)

Required Equipment

- SS Heating Vessel with stirrer (water phase)
- SS Heating Vessel (oil phase)
- Overhead homogenizer/emulsifier
- pH meter
- Thermometer
- Mixing paddle/spatula
- Vacuum deaerator (optional)
- Filling & packing unit

Step-by-Step Procedure

✓ Phase A: Oil Phase Preparation

1. **Take an SS vessel.**
2. Charge the following into the vessel:
 - Stearic Acid — 4%
 - Cetyl Alcohol — 1.5%
 - Emulsifying Wax (Ginol 6820) — 4%
 - Liquid Paraffin — 2%
 - Dimethicone — 1%
 - Cyclopentasiloxane — 1%
3. **Start heating at 70–75°C** with continuous gentle stirring until completely melted and homogenous.

🔗 Phase B: Water Phase Preparation

1. In a separate SS vessel, charge:
 - Aqua — 80%
 - Disodium EDTA — 0.05%
 - Glycerin — 0.5%
 - Citric Acid — 0.15%
 - 1,3-Propanediol — 1%
 - Potassium Hydroxide — 0.271%
 - Triethanolamine — 1.45%
 - Titanium Dioxide — 0.08% (disperse in small portion of water before adding)
 - Boric Acid — 0.4%
 - Magnesium Carbonate — 0.1%
 - Talcum Powder — 0.1%
2. **Heat to 70–75°C** and stir until fully dissolved and uniform.

🔄 Emulsification (Phase A + Phase B)

1. **Slowly add hot Phase B (Water Phase) into Phase A (Oil Phase)** under **high-shear mixing or homogenizer** at 3000–4000 rpm for 5–10 minutes.
2. **Continue mixing and maintain temperature at 70°C.**

🔗 Phase C: Pre-hydration and Addition

1. Pre-hydrate:
 - Carbopol Ultrez-20 — 0.02%
 - Sodium Hyaluronate — 0.02%
 - in Aqua — 2%
2. Mix well and then **add into main batch** while stirring continuously.
3. Begin **cooling the batch** to 40°C.

Phase D: Cooling Phase Addition (Below 40°C)

1. Add:
 - D-Panthenol — 0.5%
 - All-rac-Alpha Tocopheryl Acetate — 0.5%
2. Mix gently until uniform.

Phase E: Preservative System

1. Add preservative blend:
 - Phenoxyethanol — 0.4%
 - Ethylhexylglycerin — 0.25%
2. Mix well at 35–40°C.

Phase F: Perfume Addition

1. Add:
 - Perfume — 0.1–0.5% (as desired)
2. Mix gently and uniformly.

Final Steps

1. **Check pH:** Adjust if necessary (Target: 5.5–6.5)
2. **Deaerate** the batch (if possible) using vacuum or slow stirring.
3. **Check viscosity, appearance, and texture.**
4. **Transfer to filling line** once product is cooled to below 30°C.
5. **Fill in suitable containers** and label accordingly.

Quality Control (QC) Checks

- Appearance: Smooth white cream, homogenous
- pH: 5.5–6.5
- Viscosity: As per standard
- Microbial test: Pass (per preservative system)
- Stability: Perform accelerated/stability testing as per protocol

Formulation-29

Advance Calming Aloe vera Soothing Gel

Name	%	Remark
Aqua	80	
Di-Sodium EDTA	0.05	
Sodium Methyl Paraben	0.05	
Allantoin	0.05	
1,3-propane Diol	2	
Butylene Glycol	2	
Ethanol	2	
Glycerin	2	
Phenoxyethanol	0.05	
Sodium Hyaluronate	0.25	
Carbopol ultrez 20	0.66	
Triethanolamine	0.663	
Aloe vera Leaf Juice	10	
Total	100.000	

Manufacturing Procedure

Required Equipment

- Stainless steel mixing tank with stirrer
- Homogenizer (optional, for better consistency)
- pH meter
- Heating arrangement (if needed)
- Clean containers for weighing and dissolving ingredients

Manufacturing Steps

1. Add Aqua (Purified Water) to the mixing vessel and start gentle stirring.
2. Add Disodium EDTA and stir until fully dissolved.
3. Sequentially add Sodium Methyl Paraben, Phenoxyethanol, and Allantoin. Mix until dissolved.
4. Add Glycerin, 1,3-propane Diol, Butylene Glycol, and. Stir until uniform.
5. In a separate container, disperse Carbopol ultrez 20 in a small amount of water. Allow full hydration (30–60 mins).
6. Add hydrated Carbopol to the main batch with continuous stirring.
7. Slowly add Triethanolamine to neutralize and form the gel. Monitor pH (target 5.5–6.5).
8. Add pre-dissolved Sodium Hyaluronate and mix gently.

9. Add Plant Extracts, followed by Fragrance and Color. Stir to ensure uniformity.
10. Homogenize briefly for a smooth, consistent gel (optional).
11. Check final pH and adjust if necessary.
12. Fill the gel into sterilized containers and label appropriately.

Final Quality Checks

- ✓ pH: 5.5 – 6.5
- ✓ Viscosity: As per required gel consistency
- ✓ Visual: Clear and smooth gel
- ✓ Microbial testing: Ensure preservative effectiveness
- ✓ Fragrance: Mild and pleasant

Formulation-30

Calming Green Herbs Soothing Gel

Name	%	Remark
Aqua	90	
Di-Sodium EDTA	0.05	
Sodium Merhyl Paraben	0.05	
Allantoin	0.1	
Propylene Glycol	2	
PEG-400	0.5	
Glycerine	1	
Phenoxyethanol	0.5	
Sodium Hyluronate	0.25	
Carbopol-U20	0.5	
KOH	0.5	
Moringa Oleifera Extract	0.1	
Aloevera Extract	5	
Calendula Officinalis Extract	0.1	
Matcha Tea Extract	0.1	
Cucumber Extract	0.1	
Total	100.000	

Manufacturing Procedure

Required Equipment

- Stainless steel mixing tank with stirrer
- Homogenizer (optional, for better consistency)
- pH meter

- Clean containers for weighing and mixing
- Heating arrangement (if needed)

Manufacturing Steps

1. Take 90% Aqua in the mixing vessel. Start gentle stirring.
2. Add Disodium EDTA, Sodium Methyl Paraben, and Allantoin. Stir until completely dissolved.
3. Add Propylene Glycol, PEG-400, Glycerin, and Phenoxyethanol. Mix until uniform.
4. In a separate container, hydrate Carbopol-940 in 9.537% Aqua. Let it stand for 30–45 minutes.
5. Dissolve KOH in same amount of Aqua to prepare a neutralizing solution.
6. Add KOH solution slowly to the Carbopol mixture to form a clear gel.
7. Combine the gel phase with the main batch (Phase A) while stirring gently.
8. Add botanical extracts (Moringa, Aloe Vera, Calendula, Matcha Tea) and mix thoroughly.
9. Add fragrance if required (marked 0.000% here, optional).
10. Homogenize briefly for better consistency (optional).
11. Check and adjust pH to 5.5–6.5.
12. Fill into sterilized containers and label appropriately.

Final Quality Checks

- ✓ pH: 5.5 – 6.5
- ✓ Viscosity: Medium gel consistency
- ✓ Appearance: Clear to slightly opaque gel
- ✓ Fragrance: Mild or fragrance-free
- ✓ Microbial test: Ensure preservative effectiveness

Formulation-31

Facial Massage Cream

Name	%	Remark
Oil Phase		
Stearic Acid	7.77	
Cetyl Alcohol	1.35	
Ceto Steryl Alcohol	3.49	
Bees Wax	1.24	
Liquid Paraffin	4.13	
Water Phase		
Aqua	77.94	
Glycerine	1.22	
Propylene Glycol	0.60	
Potassium Hydroxide	0.45	
Triethanolamine	0.39	

Titanium Oxide	0.061	
Boric Acid	0.63	
SLS	0.01163428	
Fine Gum	0.03822694	
Citric Acid	0.34902854	
MPS	0.10138448	
PPS	0.10138448	
EDTA	0.07146775	
Total	100	

✓ Facial Massage Cream – Manufacturing Procedure

◆ Phase A – Oil Phase Preparation

1. **Take a clean SS jacketed vessel** equipped with a mechanical stirrer and heating system.
2. Add the following ingredients into the vessel one by one while continuously stirring:
 - **Stearic Acid** – 7.77%
 - **Cetyl Alcohol** – 1.35%
 - **Ceto Stearyl Alcohol** – 3.49%
 - **Beeswax** – 1.24%
 - **Liquid Paraffin** – 4.13%
3. Start heating the mixture gradually to **70–75°C** with slow to moderate stirring until all ingredients melt and form a **clear homogeneous oil phase**.
4. Maintain temperature and keep stirring until ready to mix with water phase.

◆ Phase B – Water Phase Preparation

1. In a separate SS vessel, add:
 - **Aqua (DM Water)** – 77.94%
 - **Glycerin** – 1.22%
 - **Propylene Glycol** – 0.60%
 - **EDTA** – 0.071%
 - **Potassium Hydroxide** – 0.45%
 - **Triethanolamine** – 0.39%
 - **Boric Acid** – 0.63%
 - **Citric Acid** – 0.349%
 - **SLS** – 0.0116%
 - **Fine Gum** – 0.038%
 - **Titanium Dioxide** – 0.061%
2. Begin heating this water phase to **70–75°C**, stirring continuously to ensure full dissolution of solubles and dispersion of powders.

◆ Phase C – Emulsification

1. At **70–75°C**, slowly add the **oil phase (Phase A)** into the **water phase (Phase B)** with **high-speed stirring (homogenizer preferred)** to form an emulsion.
2. Continue mixing for **10–15 minutes** until a **smooth and uniform emulsion** is formed.
3. Begin cooling the batch to **40°C** while stirring continuously.

◆ Phase D – Cooling & Preservative Addition

1. Once the batch reaches 40°C, add:
 - **MPS (Methyl Paraben Sodium)** – 0.101%
 - **PPS (Propyl Paraben Sodium)** – 0.101%
2. Mix gently for **5–10 minutes** to ensure full dissolution and uniform distribution.

◆ Final Step – pH & Viscosity Adjustment

1. Check **pH** – it should be around **6.5–7.5**. Adjust if needed with small amounts of citric acid or TEA.
2. If needed, adjust viscosity using **Fine Gum** or additional waxes.
3. Once cooled to room temperature (~30°C), **transfer the batch** to storage or filling tanks.

📦 Packaging Note:

- Use clean and sterilized jars or tubes.
- Fill immediately after batch cooling to avoid contamination.

✅ Remarks:

- Shelf life depends on preservation and packaging conditions.
- Perform microbiological & stability testing before final batch approval.

Formulation-32

Advance Skin Brightening Emulsion Cream

Name	%	Remark
Phase A		
SENANOV TM WR	0.60	
MONTANOV TM 202	1.50	
LANOLP	3.00	
LANOLP99	3.00	
SEPWHITE TM MSH	1.00	
Glyceryl monostearate	1.00	
Octyldodecanol	6.00	
Dimethicone	3.00	
Dimethiconol	0.50	
Phase B		
SOLAGUM TM AX	0.40	
Water	Up to 100	
1.3 Butylene glycol	5.00	
Lactic Acid	0.20	
Phase C		
Triethanolamine	0.43	
Phase D		
SEPIPLUS TM AX	1.10	
Phase E		
SEPICALM TM VG WP	1.50	
Phase F		
SEASHINE TM	1.00	
Di -A-Tocopheryl Acetate	0.50	
Phenoxyethanol - Ethylhexylglycerin	1.00	
Fragrance	0.10	

✓ Manufacturing Procedure for Emulsion Cream (Using SEPIPLUS, SEPICALM, SEASHINE)

◆ Phase A (Oil Phase Preparation)

1. **Take a clean SS vessel.** Add all Phase A ingredients one by one.
2. **Heat Phase A to 75–80°C** under slow agitation (use a propeller stirrer or anchor).
3. Ensure all ingredients (especially waxy ones like Glyceryl Monostearate, MONTANOV 202, LANOLP) are fully melted and homogenous.
4. Maintain temperature at 75–80°C.

◆ *Phase B (Water Phase Preparation)*

1. In a separate clean vessel, add **SOLAGUM AX** to water gradually with **high-speed mixing** (e.g. **Silverson or overhead stirrer**) to avoid lumping.
2. Add **1,3-Butylene Glycol** and mix.
3. Add **Lactic Acid** and continue stirring till uniform.
4. Heat Phase B to 75–80°C.

◆ *Emulsification (A+B)*

1. Once both Phase A & B are at same temperature (75–80°C), **slowly add Phase A into Phase B** under continuous stirring.
2. Use **high-speed emulsifier** (e.g., **homogenizer at 3000 rpm for 5–10 mins**) to create a smooth emulsion.
3. Begin cooling while stirring with anchor/propeller stirrer.

◆ *Phase C*

1. At around **45°C**, add **Triethanolamine** slowly to adjust pH and stabilize emulsion.
2. Mix for 5–10 mins until properly dispersed.

◆ *Phase D*

1. Add **SEPIPLUS AX** slowly under stirring to thicken and stabilize the texture.
2. Continue mixing for uniformity.

◆ *Phase E*

1. At about **35–40°C**, add **SEPICALM VG WP** slowly.
2. Mix well until fully incorporated.

◆ *Phase F (Cooling and Final Ingredients)*

1. Once the batch cools to below 35°C:
 - Add **SEASHINE, Di-A-Tocopheryl Acetate (Vitamin E), Phenoxyethanol + Ethylhexylglycerin**, and **Fragrance**.
2. Mix gently but thoroughly to avoid air entrapment.
3. Check and adjust pH if required (ideal: ~5.5–6.0).

✓ Final Checks

- **Appearance:** Smooth, glossy white cream.
- **pH:** 5.5–6.0
- **Viscosity:** As desired (~30,000–50,000 cps depending on SEPIPLUS & MONTANOV combination).
- **Stability:** Test at RT, 4°C, 45°C, and 5C freeze-thaw for 4 weeks.

🧴 Packaging

Once cooled to room temperature, fill in air-tight containers using piston filler or manually depending on viscosity.

✂ Notes

- **SEPIPLUS AX** acts as a polymeric thickener and stabilizer.
- **SEPICALM VG WP** helps in anti-inflammatory & skin-soothing activity.
- **SEASHINE** provides skin lightening & radiance.
- **SEANOV TM WR & MONTANOV 202** act as emulsifiers/stabilizers for a stable O/W emulsion.

Formulation-33

Brightening Moisturizer Cream -1

Name	%	Remark
Phase A		
Aqua	65.9514597	
DiSodium Edta	0.1099191	
Allantoin	0.198382	
Xanthan Gum	0.11431586	
Triethanolamine	1.53886739	
Sodium Benzonate	0.1099191	
Boric Acid	0.4396764	

Glycerine	4.39676398	
Citric Acid	0.2198382	
Micronized Titanium Dioxide	0.2198382	
Phase B		
Stearic Acid	5.49595498	
Cetyl Alcohol	0.81340134	
Bees Wax	1.53886739	
Liquid Paraffin	4.39676398	
Oleic Acid	0.3297573	
Isopropyl Myristate	0.6595146	
Shea Butter	0.5495955	
Sweet Almond Oil	0.2198382	
Kojic Dipalmited	0.21983282	
Dimethicone	0.50562786	
Phase C		
Aqua	2.63805839	
Sodium Hyaluronate	0.1	
Ultrez-20	0.07914	
Phase D		
Rosa Rubiginosa Extract	0.219838199	
All -rac-Alpha - Tocopheryl Acetate	0.5	
Liquoric root Extract	0.2198382	
Calendula Officinalis Extract	0.2198382	
Centella Asiatica Extract	0.1	
Moringa Oleifera Extract	0.2198382	
Aloeverabadensis Leaf juice	0.5198383	
Alpha Arbutin	1.099191	
Niacinamide	2.19838199	
Glutathione	2	
Ethyl Hexyl Glycerine	0.25694337	
Phenoxy Ethanol	0.2598382	
Fragrance(Wood sage and sea Salt	Qs	
Total	100	

Moisturizing Cream Manufacturing Procedure (Smart SOP)

Phase A – Aqueous Phase Preparation

1. Take a clean, stainless steel vessel and start heating purified Aqua (65.95%) to 75–80°C.
 2. Under continuous stirring, **sequentially add** the following ingredients:
 - **DiSodium EDTA (0.11%)**
 - **Allantoin (0.20%)**
 - **Xanthan Gum (0.11%)** — Sprinkle slowly to avoid clumping.
 - **Triethanolamine (1.54%)**
 - **Sodium Benzoate (0.11%)**
 - **Boric Acid (0.44%)**
 - **Glycerine (4.40%)**
 - **Citric Acid (0.22%)**
 - **Micronized Titanium Dioxide (0.22%)**
 3. Mix until all solids are fully dissolved and a clear homogeneous solution is achieved.
 4. Maintain temperature at 75–80°C.
-

Phase B – Oil Phase Preparation

1. In a separate vessel, begin heating to 75–80°C.
 2. Add the following ingredients:
 - **Stearic Acid (5.50%)**
 - **Cetyl Alcohol (0.81%)**
 - **Bees Wax (1.54%)**
 - **Liquid Paraffin (4.40%)**
 - **Oleic Acid (0.33%)**
 - **Isopropyl Myristate (0.66%)**
 - **Shea Butter (0.55%)**
 - **Sweet Almond Oil (0.22%)**
 - **Kojic Dipalmitate (0.22%)**
 - **Dimethicone (0.51%)**
 3. Stir gently until all ingredients are melted and form a uniform oil phase.
-

Emulsification

1. **Slowly add the Oil Phase (B) into Aqueous Phase (A)** under high-shear stirring (emulsifier or homogenizer) at 75°C.
 2. Continue homogenization for **15–20 minutes** until a smooth emulsion is formed.
 3. Start cooling gradually with slow stirring.
-

◆ *Phase C – Hydration Phase (below 45°C)*

1. In a separate vessel, dissolve the following in **Aqua (2.64%)**:
 - **Sodium Hyaluronate (0.1%)**
 - **Ultrez-20 (0.08%)**
2. Mix well to form a gel.
3. Once the main batch reaches **below 45°C**, add this gel phase slowly while stirring continuously.

◆ *Phase D – Actives & Extracts Addition (below 40°C)*

Add the following **sequentially under continuous slow stirring**:

- **Rosa Rubiginosa Extract (0.22%)**
- **Vitamin E Acetate (0.5%)**
- **Liquorice Root Extract (0.22%)**
- **Calendula Extract (0.22%)**
- **Centella Asiatica Extract (0.1%)**
- **Moringa Extract (0.22%)**
- **Aloe Vera Juice (0.52%)**
- **Alpha Arbutin (1.10%)**
- **Niacinamide (2.20%)**
- **Glutathione (2.0%)**
- **Ethyl Hexyl Glycerine (0.26%)**
- **Phenoxyethanol (0.26%)**
- **Fragrance (Wood Sage & Sea Salt) – Q.S.**

◆ *Final Homogenization*

1. Perform a final **gentle homogenization** for 5 minutes to ensure uniform distribution of all active ingredients and extracts.
2. Check and adjust **pH (target: 5.5–6.0)** if needed using TEA or Citric Acid.

✓ *Final Step: Filling & Packing*

- Let the cream stand for **de-aeration**.
- Fill in suitable containers (jars or tubes) under hygienic conditions.
- Label and store in a cool, dry place.

⚠ *Note:*

- Use GMP-compliant cleanroom protocols.
- All ingredients must be **cosmetic-grade and preserved properly**.
- Stability testing is recommended before final batch production.

Formulation-34

Advance Hydra Glow Moisture Shield

Name	%	Remark
Phase A		
DM Water	82.10416667	
EDTA	0.104166667	
So Ax	0.208333333	
Glycerine	4.166666667	
Allantoin	0.520833333	
Phase B		
CCTG	4.166666667	
Mov 202	2.083333333	
Shea Butter	1.041666667	
Phase C		
Vitamin E	0.416666667	
SEP 400	2.291666667	
Phase D		
Water	2.083333333	
Ascorbic Acid(Vitamin C)	0.053083333	
Glucose Powder	0.03125	
Phase E		
Eux 9010	0.520833333	
Fragrance(Cool Woman)	0.208333333	
Total	100	

 Tagline:

"Hydrate. Soothe. Glow – Naturally."

 Product Claims (Key Benefits):

- Deep hydration and long-lasting moisturization
- Soothing effect on irritated or sensitive skin

- Skin barrier strengthening with Vitamin E & Shea Butter
- Antioxidant protection with Vitamin C & Allantoin
- Lightweight, non-greasy texture
- Safe for daily use on all skin types

Manufacturing Procedure:

Phase A – Aqueous Phase:

1. In a **clean, disinfected SS mixing tank**, add **DM Water** and begin **stirring at 60–70°C**.
2. Add **EDTA**, **So Ax**, and **Glycerine** one by one with continuous stirring.
3. Slowly add **Allantoin** and continue mixing until fully dissolved.

Phase B – Oil Phase:

1. In a separate vessel, heat **CCTG**, **Mov 202**, and **Shea Butter** to 70°C until all components are melted and uniform.
2. Ensure both **Phase A & B are at ~70°C**, then **slowly add Phase B to Phase A** under high-shear stirring to form a smooth emulsion.
3. Maintain homogenization for **10–15 minutes**.

Cooling Phase:

1. Start cooling the emulsion gradually to **<45°C** under moderate stirring.

Phase C – Post Emulsification:

1. Add **Vitamin E** and **SEP 400** slowly while stirring.

Phase D – Vitamin C Complex (Water-Based):

1. Dissolve **Ascorbic Acid** and **Glucose Powder** in the separate **2.08% water**.
2. Add this **Phase D solution** into the main batch slowly under gentle mixing.

Phase E – Preservative & Fragrance:

1. Add **Euxyl 9010** followed by **Fragrance (Cool Woman)**.
2. Stir well until the product is completely homogeneous.

QC Checklist:

Parameter	Standard	Method
Appearance	White/off-white creamy lotion	Visual

Parameter	Standard	Method
Odor	Pleasant, as per fragrance used	Sensory Evaluation
pH (at 25°C, 10% soln.)	5.0 – 6.0	pH Meter
Viscosity (cP)	5,000 – 15,000	Brookfield Viscometer
Microbial Limit	<100 CFU/g; No Pathogens	Plate Count/ISO 21149
Stability	3 months @ 40°C/25°C/5°C	Stability Test
Packaging Compatibility	No reaction, leakage or separation	Accelerated Test

Regulatory Guidelines (Bangladesh & International):

- ✓ **INCI Compliance:** All ingredients used must be labeled with their INCI names as per EU/ASEAN/US FDA cosmetic labeling regulations.
- ✓ **Preservative Limit:** Euxyl 9010 (Phenoxyethanol + Ethylhexylglycerin) within 1% is safe and compliant.
- ✓ **Vitamin C:** Used below 0.1%, acceptable without stability concerns in emulsion.
- ✓ **No Banned Substances** as per BSTI, EU Cosmetic Regulation (EC) No 1223/2009.
- ✓ **Claims Substantiation:** Clinical or instrumental testing is recommended before marketing with "hydrating" or "barrier repair" claims.
- ✓ **Labeling Requirements:**
 - Product Name
 - Net Weight
 - Manufacturer Info
 - Batch No & Mfg/Exp Date
 - Ingredients (INCI format)
 - Usage Directions & Warnings

Packaging Recommendation:

- **Airless pump bottle or laminated tube**
- Opaque packaging recommended to protect Vitamin C and antioxidants
- Volume: 50 ml / 100 ml options

Storage Conditions:

- Store below **30°C**, away from direct sunlight and humidity.
- Shelf-life: **24 months** in standard packaging (after full stability testing).

Formulation-35

Clarifresh BPO Control Cream

Name	%	Remark
Phase A		
Aqua	80.59	
Allantoin	0.4	
Disodium EDTA	0.1	
RM-2051	0.2	
Phase B		
Benzoyol Peroxide	0.3	
Cetyl Alcohol	2.3	
Emulsion Wax	1.9	
Bees Wax	0.5	
Myristic Acid	0.3	
Glyceryl Stearnate	2	
Isopropyl Myristate	2	
BHT	0.1	
CCTG	3.5	
Phasr C		
Glycerine	2	
Propylene Glycol	1.5	
Phasr D		
Tocopheryl Acetate	0.2	
D-Panethanol	0.4	
Phase E		
DC-200	1.05	
Triethanolamine	0.1	
Calendula Officinalis Extract	0.05	
Aloevera Extract	0.1	
Phase F		
Phenoxyethanol	0.4	
Lavender Oil	0.1	
Total	100	



Tagline:

"Clear Skin. Calm Glow. Confident You."



Key Claims (Product Benefits):

- Reduces acne and prevents new breakouts
- Gently exfoliates and removes excess oil
- Soothes and repairs inflamed or irritated skin

- Moisturizes without clogging pores
- Lightweight, non-greasy finish
- Suitable for oily and acne-prone skin types



Full Manufacturing Procedure:



Phase A – Water Phase:

1. Into a **clean SS vessel**, add **Aqua (DM Water)** and start heating to **65–70°C** under stirring.
2. Add **Disodium EDTA, RM-2051**, and allow to dissolve completely.
3. Add **Allantoin** and stir until clear.



Phase B – Oil Phase:

1. In a separate vessel, add **Bees Wax, Emulsion Wax, Cetyl Alcohol, Myristic Acid, Glyceryl Stearate, CCTG, and Isopropyl Myristate**.
2. Heat to **~70°C** until all components are melted uniformly.
3. Add **Benzoyl Peroxide** slowly and dissolve completely.
4. Add **BHT** and mix well.

 **Benzoyl Peroxide should be handled carefully under controlled conditions. Use protective gear.**



Emulsification:

1. Add the entire **Phase B (oil)** into **Phase A (water)** **slowly with high-shear mixing**.
2. Homogenize for **10–15 minutes** until a uniform emulsion forms.



Phase C – Humectant Phase:

1. Reduce temperature to **<45°C**.
2. Add **Glycerine** and **Propylene Glycol** one by one while stirring gently.



Phase D – Actives Phase:

1. Add **D-Panthenol** and **Tocopheryl Acetate (Vitamin E)**.
 2. Stir gently to avoid foaming.
-

 Phase E – Botanical & pH Adjust:

1. Add **DC-200 (Dimethicone)** and mix.
2. Add **Triethanolamine** to adjust pH to ~5.5–6.5.
3. Then add **Calendula Extract** and **Aloe Vera Extract**.

 Phase F – Preservative & Fragrance:

1. Add **Phenoxyethanol** as preservative.
2. Add **Lavender Oil** as natural fragrance.
3. Mix gently until the product is completely uniform.

 QC Checklist (Quality Control):

Test Parameter	Standard/Specification	Method
Appearance	White to off-white smooth cream	Visual
Odor	Mild lavender, clean herbal	Sensory
pH (10% solution @ 25°C)	5.5 – 6.5	pH Meter
Viscosity	10,000 – 25,000 cP	Brookfield Viscometer
Microbial Test	Total <100 CFU/g; Pathogens: Absent	Plate Count, ISO 21149
Stability Test	No separation at 40°C/4°C/RT	Stability Chamber Test
Compatibility Test	Tube/Pump: No leaching/separation	Packaging Compatibility

 Regulatory Guidelines:

-  Compliant with **BSI and EU Cosmetic Regulation (EC) No 1223/2009**
-  **Benzoyl Peroxide:** Used at 0.3%, which is within safe topical range (max 2.5% OTC in some regions)
-  **Phenoxyethanol:** Used below max allowed 1%
-  Natural actives like Aloe Vera and Calendula used at skin-safe levels
-  pH maintained in skin-friendly range
-  Labeling must include:
 - Product Name
 - Net Weight
 - Ingredients (INCI format)
 - Manufacturer Info
 - Mfg & Exp Date
 - Batch Number
 - Usage Instruction and Warning ("For external use only", "Avoid contact with eyes")

Packaging Recommendation:

- **Airless tube** or **flat jar** with inner lid
- Avoid transparent packaging due to Benzoyl Peroxide sensitivity to light
- Recommended size: 30g / 50g / 100g

Storage Guidelines:

- Store below **25°C**, away from direct sunlight
- Shelf life: **24 months** (after complete stability and microbial testing)

Optional Consumer-Facing Directions for Use:

"Apply a thin layer evenly to cleansed skin, once or twice daily. Avoid eye area. For best results, use daily. Discontinue if irritation occurs."

Formulation-36

Rose Lip Bulm

Name	%	Remark
Petroleum jelly	77.6181189	
Liquid Paraffin	18.508936	
Bees Wax	0.65278828	
Cetyl Alcohol	0.93241253	
Stearic Acid	0.8995740950	
Ross Ess. Oil	0.497552044	
Rose Petal	0.248776022	
Color Red Livery	0.134339052	
Color Black Livery	0.009951041	
Rose Petal	0.497552044	
Total	100	

Manufacturing Procedure:

Phase-1: Melting Oil Phase

- Take a stainless steel kettle (preferably double jacketed with stirrer).
- Add Petroleum Jelly, Liquid Paraffin, and Bees Wax.

- Heat gently to 70–80°C with continuous stirring until completely melted.
- Add Cetyl Alcohol and Stearic Acid. Continue stirring until dissolved.

Phase-2: Cooling & Fragrance

- Turn off the heat and allow the mixture to cool to around 55–60°C.
- Add Rose Essence Oil, Rose Petal extract/paste, Color Red Livery, Color Black Livery, and again Rose Petal.
- Mix thoroughly to ensure even distribution of fragrance and color.

Phase-3: Molding & Packaging

- When the mixture cools to around 45–50°C, pour into lip balm molds or containers.
- Allow to cool completely at room temperature to solidify.
- Seal with appropriate caps and package.

Notes:

- Store in a cool, dry place away from sunlight and heat.
- Shelf Life: 24 months under proper storage conditions.

Formulation-37

Sandalwood Face Mask

Name	Kg	Remark
Water	53	
Fullers Earth	36	
Glycerine	6	
Sandel Powder	0.25	
C12-15 Alkyl Benzoate	1	
Titanium Dioxide	0.4	
Total	100	

Manufacturing Procedure :

Total Batch Size: ~96.65 kg

Phase 1: Base Preparation

1. In a clean SS mixing tank, take 53 kg purified water and start stirring.
2. Gradually add 1 kg C12-15 while mixing to ensure full dispersion.
3. Maintain temperature at 40–45°C for optimal hydration.

Phase 2: Active Dispersion

4. Slowly add 400 g Titanium Dioxide into the solution with continuous stirring.
5. Ensure no clumps are formed – use a high-speed stirrer if needed.
6. Add 36 kg Fullers Earth portion-wise into the mixture.
7. Stir until a smooth, uniform paste is formed.

Phase 3: Moisturizing & Enrichment

8. Add 6 kg Glycerine and mix gently until well incorporated.
9. Add 250 g Sandalwood Powder, continue slow mixing to maintain consistency and aroma.

Phase 4: Final Processing

10. Homogenize the final mix (optional but recommended) for a smooth and luxurious texture.
11. Allow the product to cool to room temperature.
12. Check and record:
 - pH: Should be between 6.0 – 7.5
 - Viscosity: As per desired specification

Phase 5: Filling & Packaging

13. Transfer the final product into clean, sanitized jars or containers.
14. Label and store in a cool, dry, contamination-free area.

Key Notes:

- ✓ Use sanitized equipment throughout the process.
- ✓ Ensure batch records and quality control logs are maintained.
- ✓ Perform microbial & stability tests for long-term product integrity.

Formulation-38

Sea Salt Body Scrub

Name	Kg	Remark
Olive Oil	9kg	
RBD	9kg	
Vaseline	4kg	
DPG	4kg	
CCTG	4kg	
Vitamin E	1kg	
Mango Perfume	150g	
C12-15 Alkyl Benzoate	1kg	
BHT	100g	
Salt	75kg	

Body Scrub Manufacturing Procedure (SOP)

Total Batch Size: 107.25 kg

◆ Phase A – Oil Phase Preparation

Ingredients:

- Olive Oil – 9 kg
- RBD Oil – 9 kg
- Vaseline (Petroleum Jelly) – 4 kg
- DPG (Dipropylene Glycol) – 4 kg
- CCTG (Caprylic/Capric Triglyceride) – 4 kg
- C12-15 Alkyl Benzoate – 1 kg
- Vitamin E – 1 kg
- BHT – 100 g

Procedure:

- Weigh all ingredients of Phase A accurately.
- Transfer them into a stainless steel mixing vessel.
- Begin heating the vessel to **60–70°C**, using indirect heat (e.g., steam jacket).
- Stir gently but continuously until all components are fully melted and homogenous.
- Once uniform, reduce heat and keep warm at **~45°C**.

◆ Phase B – Perfume Addition

Ingredient:

1. Mango Perfume – 150 g

Procedure:

- Cool Phase A mixture to **below 45°C** to avoid fragrance loss.
- Add Mango Perfume gradually while stirring.
- Mix thoroughly for 10–15 minutes until uniformly blended.

◆ Phase C – Scrub Phase

Ingredient:

1. Salt (Sodium Chloride – fine grain or semi-coarse) – 75 kg

Procedure:

- Slowly add the salt into the oil-based mixture in portions.
- Stir continuously using a strong mixer or planetary mixer to ensure even dispersion.
- Continue mixing until the scrub becomes smooth, uniform, and consistent in texture.

✓ Final Steps:

1. Perform quality checks (texture, appearance, fragrance, viscosity).
2. Transfer the finished scrub into clean, sterilized containers.
3. Label and store in a cool, dry place away from direct sunlight.

Formulation-39

Coffe Body Scrub

Name	Kg	Remark
Lorit	12	
Vaseline	23	
Olive Oil	27	
Vitamin E	0.9	
CCTG	22.50	
IPM	22.50	
Coffe Powder	6	
Sugar	70	
Perfume	Qs	
BHT	0.150	

Manufacturing Procedure (SOP)

Phase A – Oil Phase Preparation

1. **Take a clean, sanitized mixing vessel.**
2. Add the following ingredients into the vessel:
 1. **Lorit** – 12%
 2. **Vaseline** – 23%
 3. **Olive Oil** – 27%
 4. **CCTG (Caprylic/Capric Triglyceride)** – 22.50%
 5. **IPM (Isopropyl Myristate)** – 22.50%
 6. **Vitamin E** – 0.90%
 7. **BHT** – 0.15%
3. Heat the mixture gently to **45–50°C**, just enough to melt Vaseline and make a homogenous blend. Stir continuously at low RPM (around 100–150 RPM) using a paddle mixer or overhead stirrer.

Phase B – Scrub Phase (Cool Addition)

1. Allow Phase A to **cool down to 35–40°C**.
2. Slowly add:
 - **Coffee Powder** – 6% (make sure it's fine to medium grind for gentle exfoliation)
 - **Sugar** – 70% (preferably white or brown sugar with medium particle size)
3. Mix gently at low speed (60–100 RPM) to avoid breaking the sugar crystals. Ensure uniform dispersion.

Phase C – Final Touch

4. Add:
 - **Perfume/Fragrance** – Q.S (as per desired scent strength)
5. Mix slowly and uniformly until well incorporated.

Packaging

7. Once the mixture is homogeneous and fully cooled (around 30°C), fill into clean, dry containers.
8. Avoid water contamination to maintain product stability.
9. Label and store in a **cool, dry place** away from direct sunlight.

Notes

- This is an **anhydrous formula** (no water), so no preservative is required.
- Always conduct **microbial test** and **stability testing** before market launch.
- Optionally, you can use **natural antioxidants (like rosemary extract)** for extra stability.

Formulation-40

Premium Hair Removal Cream-1

Name	%	Remark
Dionised Water	To 100	
Potassium Thioglycolate 43%	12	
Potassium Hydroxide 50%	8.5	
Glycerine	3	
Sodium Silicot	2.5	
Stabilize QM	2.2	
Urea	0.5	
Fragrance	0.5	
Cosmetic Extract	0.1	
Sodium Gluconate	0.1	
Megnesium Chloride	0.05	
Colornat	Q.S	
Thick Minarel Oil	0.6	
Cetearyl Alcohol	1	
Cetereth -20	0.4	

 Product Name:

Premium Hair Removal Cream – Smooth Touch Formula

 Product Tagline:

“Silky Smooth Skin in Minutes – No Razor, No Fuss!”

 Label Claims:

- Fast & Effective Hair Removal in 5–10 minutes
- Enriched with Glycerin & Urea for Skin Moisture Balance
- Contains Soothing Cosmetic Extracts

FB-20250629-007 (MD KHAIRUL Alam Eshad)

- Suitable for Legs, Arms, Underarms
- Dermatologically Tested
- Easy-to-Spread, Non-Drip Texture
- Salon Smooth Finish at Home

Manufacturing Procedure:

◆ Batch Size Example: 100 kg

Equipment Required:

Stainless steel mixing tank (with temperature control), anchor stirrer, pH meter, homogenizer (optional), filling machine.

PHASE A – Water Base:

1. In a stainless steel vessel, take **Dionised Water (q.s. to 100%)**.
2. Add **Potassium Thioglycolate (43%) – 12%** slowly under continuous stirring.

[Caution: Use personal protective equipment. Thioglycolate is reactive.]

3. Add **Potassium Hydroxide 50% – 8.5%** slowly while monitoring pH.

Target pH: **12.0 – 12.5** (Essential for effective depilation).

4. Mix until clear solution is achieved.

PHASE B – Solubilizers & Stabilizers:

5. Add **Glycerin – 3%**, **Sodium Silicate – 2.5%**, and stir for 10–15 minutes.
6. Add **Stabilize QM – 2.2%** and continue stirring for uniform dispersion.
7. Add **Urea – 0.5%** and mix until dissolved.

PHASE C – Emulsifying Phase:

8. In a separate vessel, heat and melt the following at **70°C**:
 - **Cetearyl Alcohol – 1%**
 - **Thick Mineral Oil – 0.6%**
 - **Cetereth-20 – 0.4%**
9. Slowly add melted Phase C into main vessel (A+B mixture) under medium stirring to form emulsion.

PHASE D – Additives & Final Cooling:

10. Cool the batch to **40°C**, then add:

- **Fragrance – 0.5%**
- **Cosmetic Extract – 0.1%**
- **Sodium Gluconate – 0.1%**
- **Magnesium Chloride – 0.05%**
- **Colornat – q.s.** (Add slowly to desired shade)

11. Check and adjust final pH (should be **12.0 – 12.5**). Stir until smooth, uniform texture.

12. Pass through mesh filter (if needed), then fill in tubes or jars.

QC Checklist:

Test	Standard/Range	Method
Appearance	Smooth, uniform white/colored cream	Visual Inspection
Odor	Mild, pleasant (as per fragrance)	Organoleptic
pH	12.0 – 12.5	pH Meter
Viscosity	25,000 – 40,000 cPs	Brookfield Viscometer
Depilation Efficacy	Removes hair within 8–10 min	Patch test on skin panel
Emulsion Stability	No separation for 4 weeks	Room temp and 45°C
Microbial Load (TBC)	< 100 CFU/g	Plate Count
Heavy Metals	Within regulatory limits	Lab Analysis

Packaging Tips:

- Use **laminated or plastic tubes** with spatula/applicator.
- Always label as “**For External Use Only**”.
- Include **patch test warning** and **usage instruction**:

“Apply for 5–10 minutes. Do not exceed 10 minutes. Rinse thoroughly.”

Important Notes:

- **Hair Removal Creams are alkaline** and may irritate sensitive skin. Proper **pH and safety testing is mandatory**.
 - Ensure **complete neutralization of thioglycolate** after use with instructions for washing.
-

Formulation-41

Premium Hair Removal Cream -2

Name	%	Remark
Xanthan Gum FN	0.8	
Urea	8.0	
Acrylate Copolymer	1.0	
Lithium Megnesium Sodium Silicate		
Paraffin Oil	5.0	
Potassium Hydroxide 50% sol	5.32	
Potassium Thioglycolate (TGK) 44.5% Solution	10.0	
Aminomethylpropanol	3.0	
Cetareth 20	0.4	
Cetearyl Alcohol	3.5	
Glycerine	5.0	
D.I Water	To 100.0	
Color as per choice	Qs	
Fragrance	Qs	

 Product Name:

SmoothEase™ Hair Removal Cream – Extra Moisturizing Formula

 Tagline:

"Gentle on Skin, Tough on Hair – Smoothness in Minutes!"

Label Claims (for packaging & marketing):

- Rapid Hair Removal within 5–10 minutes
- Enriched with Urea & Glycerine for Moisturizing
- Gentle formula with soothing base
- Dermatologically Tested
- Non-Irritating & Easy-to-Spread
- Salon-like results at home
- For legs, arms, underarms
- pH-balanced for effective depilation

Manufacturing Procedure:

 Batch Size Example: 100 kg

Equipment Needed: Stainless steel vessel with temperature control, anchor stirrer, homogenizer (optional), pH meter, filling machine.

Phase A – Water Base:

1. In a clean stainless steel vessel, add **Deionized Water (to 100%)**.
2. Add **Glycerine (5%)** and mix for 5 minutes.
3. Slowly disperse **Xanthan Gum FN (0.8%)** while stirring. Continue mixing until uniform and lump-free gel is formed.
4. Add **Acrylate Copolymer (1%)** and continue stirring for viscosity development.

Phase B – Alkaline Base Preparation:

5. In another vessel, dissolve:
 - **Potassium Hydroxide 50% – 5.32%**
 - **Aminomethylpropanol – 3.0%**
6. Mix until clear. Add this alkaline solution slowly into Phase A under medium stirring.

Phase C – Active Addition:

7. Add **Potassium Thioglycolate 44.5% – 10%** slowly. Maintain pH monitoring (target: **11.8–12.5**).

 Use with PPE; TKG is sensitive.

8. Add **Lithium Magnesium Sodium Silicate** (amount not specified, you must determine based on supplier's input—typically acts as stabilizer/viscosifier).
9. Add **Urea – 8%** to hydrate and soften skin.

◆ Phase D – Oil and Emulsifier Blend:

10. In a separate vessel, melt together:
 - **Cetearyl Alcohol – 3.5%**
 - **Ceteareth-20 – 0.4%**
 - **Paraffin Oil – 5.0%**
11. Heat this phase to around **70°C** to fully melt the wax/oil.
12. Slowly add this **Phase D** into the main batch (A+B+C) while stirring, forming a stable emulsion.

◆ Phase E – Final Additives:

13. Cool batch to **below 40°C**. Then add:
 - **Fragrance – q.s.**
 - **Color – q.s. (water-soluble or oil-dispersible based on desired tone)**
14. Stir for 15 minutes, check for uniformity.
15. **Adjust pH** (target **12.0–12.5**) using **KOH or Aminomethylpropanol**.
16. **Pass through mesh filter** if needed and fill into tubes/jars.

📋 QC Checklist:

Test Parameter	Specification	Method
Appearance	Smooth white/pale cream	Visual
Odor	Mild fragrance	Organoleptic
pH	12.0 – 12.5	pH meter
Viscosity	25,000 – 45,000 cPs	Brookfield Viscometer
Hair Removal Efficacy	Complete in ≤ 10 minutes	Skin panel patch test
Emulsion Stability	No separation (4 weeks at 45°C)	Stability chamber
Microbial Load (TBC)	< 100 CFU/g	Plate count
Heavy Metals	Within safe limit (Pb, As, Hg)	Certified Lab Testing

Regulatory Guidance:

In Bangladesh:

- This formula uses **Potassium Thioglycolate + KOH + High pH = Quasi-drug behavior**
- Therefore, **DGDA (Directorate General of Drug Administration)** registration is required.
- Not BSTI-regulated only — you'll need:
 - Product formula & label approval
 - Safety documentation (MSDS)
 - Microbial & heavy metal lab tests
 - GMP-compliant facility

Globally (if exporting):

- Follow **EU Cosmetic Regulation (EC No. 1223/2009)** — Thioglycolate $\leq 5\%$ (as free acid), $\text{pH} \geq 12$
- Follow **US FDA labeling rules**, patch test warning, and ingredient declaration
- For **ASEAN countries**, comply with ACD and notify via NPRA/BPOM/etc.

Patch Test Warning (Label requirement):

 “Perform patch test before each use. Do not use on irritated, broken, or sunburnt skin. Avoid contact with eyes. For external use only.”

Formulation-42

Dark Spot Tone Up Cream SPF 50+PA+++

Name	%	Remark
Water	59.8692	
Dibutyl Adipate	6	
Propendiol	5.002	
Butyloctyl Salicylate	5	
Dicaprylyl Carbonate	3.9986	
Titanium Dioxide	2.52	
Polysilicone-15	2.5	
Diethanolamino Hydroxy Benzoyl Hexyl Benzoate	2.5	
Niacinamid	2	
Polymethylsilsesquioxane	2	
Ethylhexyl Triazone	1.8	
Glycerine	1.3625	
1.2- Hexanediol	1.25	
Pentylene Glycol	1.2002	
VP/Eicosence Copolymer	0.5	
Methyl Proandiol	0.48	
Polyglyceryl-2 Caprate	0.378	
Fragrance	0.2	
Sucrose Stearate	0.15	
Polyacrylate Crosspolymer-6	0.15	
Ammonium Acryloyl Dimethyluratanate/Vp Cpolymer	0.15	
Simmondsia Chinensis (Jojoba) Seed Oil	0.12	
Stearic Acid	0.102	
Ethylhexylglycerine	0.1002	

Hydroxypropyl Methylcellulose Stearoxy Ether	0.1	
Alumina	0.09	
Melia Azadirachta Flower Extract	0.08	
Inulin Laureyl Carbamate	0.0625	
Glyceryl Coprylate	0.06	
Metia Azadirachta leaf Extract	0.05	
Xanthan Gum	0.05	
Adonsine	0.04	
Squaline	0.03	
Ocimum Snactum Leaf Extract	0.03	
Cur Cuma Longa (Turmuric) Root Extract	0.03	
Polyther-1	0.0225	
Sodium Polycrylate	0.0125	
Corallina Officinalis Extract	0.006	
Tocopheryl	0.0015	
Citrus junso Seed Extract	0.006	
Sodium Hyluronate	0.001	
Biosaccharide Gum-1	0.0002	
Dipotassium Glycyrrhizate	0.0001	
Sodium Ascorbyl Phosphate	0.0001	
Total	100	

 **Product Name:**

Dark Spot Tone-Up Cream SPF 50+ PA+++

 **Product Tagline:**

"Bright Today, Clearer Tomorrow – Your All-in-One UV Shield + Skin Tone Perfector."

 **Label Claims (Marketing Claims):**

- Broad Spectrum SPF 50+ PA+++

- Instantly Brightens & Tones Up Skin
- Reduces Appearance of Dark Spots
- Non-Greasy, Lightweight Finish
- Infused with Niacinamide, Jojoba Oil & Antioxidants
- Contains Botanical Extracts for Skin Soothing
- Water-Resistant Formula
- Dermatologically Tested
- Suitable for All Skin Types



Manufacturing Procedure (Smart & Professional Way):

Batch Size Example: 100 kg

Equipment Needed:

High-shear homogenizer, anchor stirrer, stainless steel reactor with temperature control, transfer vessel, pH meter, viscosity tester.

◆ PHASE A – Water Phase Preparation:

1. In a clean mixing vessel, add **Water (59.8692%)** and start stirring at medium speed.
2. Slowly add **Niacinamide, 1,2-Hexanediol, Pentylene Glycol, Glycerine, Sucrose Stearate, Xanthan Gum, Sodium Hyaluronate, Tocopheryl Acetate, Sodium Ascorbyl Phosphate, Dipotassium Glycyrrhizate, Biosaccharide Gum-1.**
3. Heat to **75°C** and stir until uniform. Ensure no lumps remain.

◆ PHASE B – Oil Phase Preparation (in a separate vessel):

1. Combine the following:
 - **Dibutyl Adipate**
 - **Butyloctyl Salicylate**
 - **Dicaprylyl Carbonate**
 - **Polymethylsilsesquioxane**
 - **Polysilicone-15**
 - **Diethanolamino Hydroxybenzoyl Hexyl Benzoate**
 - **Ethylhexyl Triazone**
 - **Titanium Dioxide** (pre-dispersed in oil)
 - **Jojoba Oil**
 - **Squalane**
 - **Stearic Acid**
 - **Alumina**
2. Heat to **75°C** and mix well using **anchor stirring** to dissolve and disperse all solids (especially TiO₂).

◆ PHASE C – Emulsification:

1. Add **Phase B into Phase A** slowly while maintaining temperature at **75°C**, using **high-shear homogenizer** at 3000–4000 rpm for 10–15 minutes to form a stable emulsion.
 2. Cool the batch to **40°C** with continuous slow stirring.
-

◆ PHASE D – Cool-Down Additives:

1. Add the following ingredients sequentially:
 - **Melia Azadirachta Flower Extract**
 - **Melia Azadirachta Leaf Extract**
 - **Ocimum Sanctum Extract**
 - **Turmeric Root Extract**
 - **Citrus Junos Seed Extract**
 - **Corallina Officinalis Extract**
 - **VP/Eicosene Copolymer**
 - **Polyacrylate Crosspolymer-6**
 - **Ammonium Acryloyldimethyltaurate/VP Copolymer**
 - **Polyether-1**
 - **Sodium Polyacrylate**
 - **Fragrance**
 - **Adonisine**
 - **Hydroxypropyl Methylcellulose Stearoxy Ether**
 - **Glyceryl Caprylate**
 - **Inulin Lauryl Carbamate**
 - **Methylpropanediol**
 - **Polyglyceryl-2 Caprate**
 - **Ethylhexylglycerin**
 2. Adjust **pH to 5.5 – 6.5** using **citric acid or triethanolamine**, if needed.
-

◆ PHASE E – Final Step:

1. Check for viscosity, pH, and emulsion stability.
 2. Once cooled to **room temperature**, transfer to filling line.
-

✓ QC Checklist (Quality Control Parameters):

Test	Standard/Range	Method
Appearance	Off-white smooth cream	Visual Inspection
Odor	Mild pleasant fragrance	Organoleptic
pH (25°C)	5.5 – 6.5	pH Meter
Viscosity	20,000 – 35,000 cPs	Brookfield Viscometer

Test	Standard/Range	Method
SPF Value (In-vitro)	≥ 50	UV Spectrophotometry
PA Rating	+++	Persistent Pigment Darkening
Emulsion Stability (5 cycles)	Stable (No separation)	Centrifuge & Freeze-Thaw Test
Microbial Load (TBC)	< 100 CFU/g	Plate Count
Heavy Metals	Within permissible limits	Lab Test

 Packaging Suggestions:

- Use **airless pump tubes** or **opaque laminated tubes** to protect actives.
- Pack under cleanroom conditions (ISO 22716 GMP compliance preferred).
- Include **batch no., mfg. date, expiry date, and sunscreen protection warning** on packaging.

 Regulatory Note:

Ensure compliance with:

- **BSTI Guidelines and Regulation**
- **Bangladesh Drug Authority guidelines**
- **EU Cosmetic Regulation (if exporting)**
- **INCI labeling format**
- **Proper sunscreen efficacy and stability documentation**

Formulation-43

Exclusive Melasma Treatment Cream

Name	%	Remark
Water	49.322000000	
Butylene Glycol	15.400300000	
Dimethicone	10.000000000	
Glyceryl Stearate	5.750000000	
Glycerine	5.000000000	

Cyclohexasil Oxane	3.0000000	
Cetearyl Alcohol	3.000000000	
Niacinamid	2.000000000	
Cyclopantasil Oxane	2.000000000	
Caprilic Capric Trigal Yceaide	2.000000000	
PEG-100 Stearate	0.750000000	
Sorbitan Sesquiquioleate	0.500000000	
Phenoxy ethanol	0.500000000	
1.2 Heaxandiol	0.140020000	
Carbomer	0.102000000	
Penthanol	0.10000000	
Gelatin	0.10000000	
Citrus Aurantium Bergamia (Bergamot) Fruit Oil	0.050000000	
Arginine	0.100000000	
Sodium Hyluronate	0.050000000	
Penthylene Glycol	0.040000000	
Adnesine	0.040000000	
Ethylhexyl Glycerin	0.030000500	
Acacia Senegal Gum	0.010000000	
Ubiquinone	0.006000000	
Cellulose Gum	0.005000000	
Tromethanolamine	0.002000000	
Tocopheryl Acetate	0.002000000	
Rose Extract	0.000086000	
Lilium Tigrinum Extract	0.000086000	
Jasminum Officinalis (Jasmine Extract)	0.000084900	
Nelumbo Nucifera Flower Extract	0.000084900	
Lentopodium Alpinum Power Extract	0.000084900	
Iris Insata Extract	0.000084900	
Freessia Refractce Extract	0.000084900	
Camelia Sinensis Leaf Extract	0.000084900	
Linalool	0.000000000	
Limonene	0.000000000	
Citral	0.000000000	

Total	100.000000000	
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✓ Manufacturing Procedure for Exclusive Melasma Treatment Cream

✍ Preparation Guidelines:

- Ensure all equipment and vessels are cleaned, sanitized, and dried properly.
- Use stainless steel jacketed mixing vessel with heating, cooling, and homogenizing capabilities.
- Maintain GMP (Good Manufacturing Practice) throughout the process.
- All raw materials must be verified and weighed accurately.

◆ Phase Division:

◆ Phase A (Water Phase)

- Water
- Butylene Glycol
- Glycerine
- Niacinamide
- Disodium EDTA (*if applicable*)
- Carbomer
- Gelatin
- Sodium Hyaluronate
- Panthenol
- Arginine
- Penthylene Glycol
- 1,2 Hexanediol
- Adenosine
- Phenoxyethanol
- Ethylhexyl Glycerin
- Botanical Extracts (Rose, Jasmine, etc.)

◆ Phase B (Oil Phase)

- Dimethicone
- Cyclohexasiloxane
- Cyclopentasiloxane
- Caprylic/Capric Triglyceride
- Cetearyl Alcohol
- Glyceryl Stearate
- PEG-100 Stearate
- Sorbitan Sesquioleate
- Tocopheryl Acetate
- Ubiquinone
- Acacia Senegal Gum
- Cellulose Gum

◆ Phase C (pH Adjust & Active Phase)

- Triethanolamine
- Bergamot Oil
- Linalool, Limonene, Citral (*as fragrance/allergen indicators*)

⚙ Step-by-Step Manufacturing Process:

✓ Step 1: Aqueous Phase (Phase A) Preparation

- In a main mixing vessel, add **Water** and start heating to **70–75°C** with continuous moderate stirring.
- Sequentially add **Butylene Glycol, Glycerine, Niacinamide**, and all **water-soluble active ingredients** (Panthenol, Hyaluronic Acid, Carbomer, Gelatin, etc.).
- Continue stirring until fully dissolved. Ensure **no lump formation**.
- Allow **Carbomer** to fully swell. Stir at medium speed for 20 minutes.

✓ Step 2: Oil Phase (Phase B) Preparation

1. In a separate vessel, combine **Dimethicone, Cyclohexasiloxane, Cyclopentasiloxane, Caprylic/Capric Triglyceride, Glyceryl Stearate, PEG-100 Stearate, Cetearyl Alcohol**, and **Sorbitan Sesquioleate**.
2. Heat the oil phase to **70–75°C** until fully melted and uniform.
3. Maintain temperature and gentle mixing to avoid overheating of volatile silicones.

✓ Step 3: Emulsification

1. Slowly add the hot oil phase (Phase B) into the hot aqueous phase (Phase A) under **high-shear homogenization** (e.g., 4000–6000 rpm).
2. Homogenize for **10–15 minutes** until a uniform white emulsion is formed.
3. Reduce speed and continue **slow mixing** (scraper stirrer if available) to stabilize the emulsion.
4. Begin **cooling** gradually to **45°C**, then to **room temperature (25–30°C)**.

✓ Step 4: Cooling Phase Additions (Phase C)

1. Once the batch reaches **<40°C**, add **Phenoxyethanol, Ethylhexyl Glycerin**, and other heat-sensitive ingredients like **Botanical Extracts, Bergamot Oil, Ubiquinone, Tocopheryl Acetate**.
2. Adjust pH using **Triethanolamine** to a final target pH of **5.5–6.0**.
3. Mix for 10–15 minutes at low speed to ensure even distribution of all actives.

✓ Step 5: Finalizing

1. Perform **QC tests** for pH, viscosity, appearance, microbial limit, and emulsion stability.
2. Filter (if required) and **transfer to filling tank**.
3. Fill into pre-sterilized containers under hygienic conditions.

4. Label, batch code, and pack.



Important Notes:

1. **Mixing Speeds:** Homogenize with appropriate RPM to avoid air entrapment.
2. **Temperature Sensitivity:** Always add heat-sensitive actives <40°C.
3. **Botanical Extracts:** Add at the lowest temperature possible to retain potency.
4. **Batch Yield Tolerance:** ±0.5% is acceptable.

Formulation-44

Advance Multi Vitamin functional Cream

Name	%	Remark
Water	75.4474180	
Methyl Prophendiol	4.000000000	
Glycerine	3.0005050000	
Dimethicone	3.000000000	
1.2-Hexandiol	2.000583500	
Niacinamid	2.000000000	
C12-15 Alkyl Benzonate	2.000000000	
Titanium Dioxide	1.660000000	
Glyceryl Stearate	1.250000000	
Cetearyl Alcohol	1.200000000	
Cyclophent Asiloxane	1.200000000	
Polysorbate 60	0.800000000	
Cyclohexasiloxane	0.800000000	
PEG-100 Stearate	0.850000000	
Polyacrylate	0.180000000	
Aluminium Hydroxide	0.180000000	
Stearic Acid	0.1600000000	
Arginine	0.100003800	
Penthenol	0.100000000	
Carbomer	0.100000000	
Polysobutene	0.084000000	

Adenosine	0.40000000	
Ethylhexylglycerin	0.03000000	
Perfume	0.02000000	
Disodium Edta	0.02000000	
Polysorbate 20	0.01500000	
Sorbitan Isotearate	0.12000000	
Houttuynia Cordate Extract	0.00975000	
Centella Asiatica Extract	0.00975000	
Propendiol	0.00100000	
Glutathione	0.00100000	
Madecassoside	0.00050000	
Asiaticaside	0.00030000	
Butylene Glycol	0.00030000	
Octyldodecanol	0.00024000	
Dextrin	0.00020000	
Benzyl Glycol	0.00009500	
Hydrogenated Lecithin	0.00006000	
Hydrolyzed Glycosaminoglycans	0.00005600	
Sodium Hyluronate	0.00005200	
Glycerine	0.00002450	
Serine	0.00001360	
Glutamic Acid	0.00001260	
Sodium Hyluronate Crosspolymer	0.00001000	
Ceramid NP	0.00001000	
Asparatic Acid	0.00000790	
Leucine	0.00000690	
Hydrolized Hyaluronic Acid	0.00000520	
Ethylhexylglycerin	0.00000500	
Alanine	0.00000440	
Lysine	0.00000420	
Tyrosine	0.00000340	
Phenylalanine	0.00000320	
Proline	0.00000300	
Threonine	0.00000300	
Valine	0.00000370	
Isoleucine	0.00000270	
Caprylyl Glycol	0.00000250	
Histidine	0.00000150	
Hydroxypropyltrimonium Hyaluronate	0.00000120	
Cysteine	0.00000115	
Methionene	0.00000115	
Hyaluronic Acid	0.00000010	
SH-Oligopeptide-2	0.00000010	

SH-Oligopeptide-1	0.000000100	
RH-Polypeptide-1	0.0000000100	
Sodium Acetylated Hyaluronate	0.000000020	
Limonene		

Smart Manufacturing Procedure – Advanced Functional Cream

Phase Breakdown:

- **Phase A (Water Phase – Heated)**
Water, Glycerine, Methylpropanediol, 1,2-Hexanediol, Niacinamide, Disodium EDTA, Carbomer
- **Phase B (Oil Phase – Heated)**
C12-15 Alkyl Benzoate, Glyceryl Stearate, Cetearyl Alcohol, PEG-100 Stearate, Stearic Acid, Polysorbate 60, Sorbitan Isostearate, Dimethicone, Cyclopentasiloxane, Cyclohexasiloxane, Titanium Dioxide, Aluminium Hydroxide
- **Phase C (Cool Down Phase)**
Arginine, Panthenol, Adenosine, Polyacrylate, Polysobutene, Propenediol, Octyldodecanol, Butylene Glycol, Ethylhexylglycerin, Perfume
- **Phase D (Actives & Extracts)**
Centella Asiatica Extract, Houttuynia Cordata Extract, Glutathione, Madecassoside, Asiaticoside, Hyaluronic Acids (various types), Amino Acids, Peptides (SH-Oligopeptide-1/2, RH-Polypeptide-1), Dextrin, Hydrogenated Lecithin

Procedure Steps:

Step 1: Water Phase Preparation (Phase A)

- In a **sanitized mixing vessel**, start heating **water** to 75–80°C.
- Slowly add **Disodium EDTA**, stir until dissolved.
- Add **Glycerine**, **Methylpropanediol**, **1,2-Hexanediol** and mix well.
- Add **Carbomer** slowly under high-speed stirring to prevent clumping.
- Add **Niacinamide** and mix until completely dissolved.
- Hold this phase at 75–80°C.

Step 2: Oil Phase Preparation (Phase B)

1. In a separate vessel, combine all **oil phase ingredients**.

2. Heat the mixture to 75–80°C with gentle stirring until everything is melted and uniform.
 1. (e.g., Glyceryl Stearate, Cetearyl Alcohol, PEG-100 Stearate, Titanium Dioxide etc.)
3. Once fully melted, maintain this temperature until ready to emulsify.

Step 3: Emulsification

1. Slowly add the **hot oil phase (Phase B)** into the **hot water phase (Phase A)** under high-shear homogenization.
2. Continue mixing for 10–15 minutes until a smooth, uniform white cream forms.
3. Begin **cooling** the batch to below 45°C with slow stirring.

Step 4: Cool Phase Additions (Phase C)

1. Once the temperature reaches ~40°C, neutralize the carbomer by adding **Arginine** (pH adjust to ~5.5–6.5).
2. Add **Panthenol, Adenosine, Polyacrylate, Polysobutene, Propenediol, Octyldodecanol, Perfume, Ethylhexylglycerin.**
3. Stir gently for 5–10 minutes.

Step 5: Sensitive Actives & Extracts (Phase D)

1. Once the temperature is below 35°C:
2. Add all **botanical extracts** – Centella Asiatica, Houlttuynia Cordata.
3. Add **actives**: Glutathione, Madecassoside, Hyaluronic Acids, Amino Acids, Peptides.
4. Stir gently but thoroughly to ensure even distribution without degrading sensitive components.

Final Adjustments

1. Check **pH** (Target: 5.5 – 6.5), adjust with Arginine or Citric Acid if needed.
2. Ensure **viscosity** is consistent.
3. If required, use a homogenizer for a final 1–2 minute blend at low shear to improve texture.
4. Let the batch rest for deaeration.

Filling & Packaging

- Fill into **airless pumps** or **tubes** under hygienic conditions.
- Store in a **cool, dry environment**, away from direct sunlight.

Formulaion -45

Advance Herbal Shampoo for Silky shine hair

Name	Kg	Remark
Sodium Lauryl Ether Sulphate, 70%	72.00	
Lauryl Glucoside	5	
Potassium Cocoyl Glycinate	5	
Coco-Di Ethanol Amine	10.00	
Cocamido Propyl Betaine	20.00	
Guar Hydroxy Propyl Trimonium Chloride	1	
Cetrimonium Chloride	15.00	
1,3-Propane Diol	10.00	
DMDM Hydantoin	2.50	
Phenoxy Ethanol	1.50	
Citric Acid	0.90	
Salt	5.00	
Dimethicone and Dimethiconol	2.5	
Hydrolised Keratin	2.5	
Hydrolised Silk peptide	2	
Herbal Extract	10.00	Ritha, Shikaki, Amloki, Brammi, Horitoki, Methi
Methylchloroisothiazolinone	2.50	
Polyquaternium -7	10.00	
DM Water	320.00	
Perfume	0.500	
Color Chocolate Brown	0.035	
Total	500	

 Product Title:

Advance Herbal Shampoo for Silky Shine Hair

 Label Claims (Marketing & Regulatory Friendly):

- ✔ Enriched with Ritha, Shikakai, Amloki, Brammi, Haritaki & Methi Extracts
- ✔ Provides silky shine and manageable hair
- ✔ Strengthens hair with Hydrolyzed Keratin & Silk Protein
- ✔ Gentle & Sulfate-friendly cleansing base

FB-20250629-007 (MD KHAIRUL Alam Eshad)

- ✓ Reduces hair dryness and frizz
- ✓ With Conditioning Actives for soft, nourished strands
- ✓ pH-balanced formula – safe for daily use
- ✓ Suitable for all hair types
- ✓ Dermatologically tested
- ✓ Paraben-free, Formaldehyde-safe preservative system

✓ QC Checklist (Quality Control Parameters):

Test Parameter	Specification	Test Method
Appearance	Smooth, viscous liquid, chocolate brown	Visual Inspection
Odor	Pleasant, as per approved perfume	Sensory Evaluation
pH (25°C)	5.5 – 6.5	pH Meter
Viscosity (Brookfield)	3000 – 6000 cps (as per design)	Brookfield Viscometer
Foam Volume	Rich foam (>150 ml)	Cylinder shake test
Stability Test	1M @ 45°C, 5°C, RT – No separation	Stability Chamber
Microbial Limit Test	Total count <100 CFU/g, No pathogens	Microbial Testing (USP)
Packaging Inspection	No leakage, proper seal	Physical Check
Label Accuracy	Complies with branding & claims	Visual Verification

Manufacturing Procedure (SOP)

Batch Size: 500 Kg

Production Area: Shampoo Manufacturing Unit

Batch No: _____

Date: _____

◆ Phase 1: Aqueous Base Preparation

1. Clean and sanitize all vessels, pipelines, and stirrers with appropriate cleaning agent and hot water.
2. Take **320 kg of DM Water** into the main SS Mixing Vessel.
3. Begin **slow stirring** (around 50–80 RPM).
4. Gradually add and mix until clear:
 - **Guar Hydroxypropyl Trimonium Chloride (1.00 kg)**
 - **Polyquaternium-7 (10.00 kg)**Stir for 15–20 minutes until uniform.

◆ Phase 2: Surfactant Blending

5. In a separate clean vessel, mix:
 - **SLES 70% (72.00 kg)**
 - **Lauryl Glucoside (5.00 kg)**
 - **Potassium Cocoyl Glycinate (5.00 kg)**
 - **Coco Diethanolamine (10.00 kg)**
 - **Cocamidopropyl Betaine (20.00 kg)**
 6. Mix gently until homogeneous and **transfer slowly** to the main vessel while stirring to prevent foam formation.
-

◆ Phase 3: Conditioning and Actives

7. Add under moderate stirring:
 - **Cetrimonium Chloride (15.00 kg)**
 - **1,3-Propane Diol (10.00 kg)**
 - **Dimethicone & Dimethiconol (2.50 kg)**
 - **Hydrolyzed Keratin (2.50 kg)**
 - **Hydrolyzed Silk Peptide (2.00 kg)**
 - **Herbal Extract Blend (10.00 kg)**
(Pre-filtered if needed; includes Ritha, Shikakai, Amloki, Brammi, Haritoki, Methi)
- Stir for another 20 minutes.
-

◆ Phase 4: Preservatives & Adjustments

8. Add the preservatives:
 - **DMDM Hydantoin (2.50 kg)**
 - **Phenoxyethanol (1.50 kg)**
 - **Methylchloroisothiazolinone (2.50 kg)***Ensure good air circulation and stir slowly.*
 9. Add **Citric Acid (0.90 kg)** dissolved in water to adjust the pH to 5.5–6.5.
 10. Slowly add **Salt (5.00 kg)** to adjust viscosity.
Mix gently until desired thickness is achieved.
-

◆ Phase 5: Final Additions

11. Add:
 - **Perfume (0.50 kg)** – blend well
 - **Color (Chocolate Brown – 0.035 kg)** – pre-dissolved in water
12. Mix the batch for additional 15 minutes until fully uniform.

◆ Filtration & Filling

13. Filter the batch through **100-mesh SS filter**.
14. Fill into pre-cleaned shampoo bottles using automatic or manual filling machine.
15. Seal caps tightly, label accurately, and store in cartons.

Packaging & Storage:

- **Primary Packaging:** HDPE or PET bottles (250 ml, 500 ml, 1L)
 - **Secondary Packaging:** Carton boxes with batch info
 - **Storage Condition:** Cool, dry place (15–30°C), away from sunlight
 - **Shelf Life:** 24 Months under recommended storage
-

Formulation-46

Neem Morning Face wash

Name	Kg	Remark
Sodium Laureth Sulphate,70%	80.00	
Palm Karnel Di-ethanol Amide	10.00	
Cocamido Propyl Betaine	15.00	
Decyl Glucoside	5.00	
Acrylate Co polymer	25.00	
DM water	65	
1,3-Propane Diol	5	
Ethyl Hexyl Glycerin	1.5	
Phenaxy Ethanol	1.5	
Disodium EDTA	0.25	
Salt	10.00	
Prooylene Glycol	5	

Salicylic Acid	1	
Sodium Bicarbonate	1	
Sodium Citrate	1.5	
Glycolic Acid	0.25	
DM Water	25	
Encapsulated Neem Extract	5.00	
DM Water	240	
Boric Acid	1	
Perfume-Neem	1	
Sodium Hydroxide (0.1% Solution)	Qs	
Color Apple Green	0.0003	
	500	



Product Name:

Neem Morning Face Wash

Batch Size: 500 kg
Category: Anti-acne | Refreshing Herbal Face Cleanser
Type: Gel-based, surfactant-rich formula with actives



Label Claims (Marketing Ready):

- ✔ Enriched with **Encapsulated Neem Extract** for anti-bacterial & anti-acne action
- ✔ Gently exfoliates with **Salicylic Acid & Glycolic Acid**
- ✔ Deep pore cleansing without drying
- ✔ Oil control + pH balanced
- ✔ Free from Paraben, SLS, Alcohol
- ✔ Refreshing **Neem fragrance**
- ✔ For oily & acne-prone skin
- ✔ Dermatologically tested



Quality Control Checklist:

Parameter	Specification	Method
Appearance	Clear to translucent green gel	Visual Inspection
Color	Apple green	Visual

Parameter	Specification	Method
Odor	Fresh Neem-based	Sensory
pH @ 25°C	5.0 – 6.0	pH Meter
Viscosity	3000–7000 cps (depending on salt adjustment)	Brookfield Viscometer
Foam Volume	High, soft foam (>150 ml)	Cylinder Shake Method
Spreadability	Smooth, easy to rinse	Manual Test
Microbial Limit	<100 CFU/g, No E. coli, Salmonella, Pseudomonas	Microbial Testing (USP)
Stability Test	1M at 5°C, RT, 45°C – No separation or odor	Stability Chamber
Packaging Check	No leak, proper seal	Physical Inspection
Label Compliance	Branding, INCI, batch & expiry info correct	Visual Check



Manufacturing SOP: Neem Morning Face Wash

Batch No: _____

Date: _____

Production Unit: Personal Care Liquid Line

◆ PHASE A – Surfactant Blend Preparation

1. Take **DM Water – 65 kg** in a **main mixing vessel** (SS316).
2. Begin **slow stirring** (50–100 rpm).
3. Gradually add:
 - **Sodium Laureth Sulphate 70% – 80 kg**
 - **Palm Kernel Diethanolamide – 10 kg**
 - **Cocamidopropyl Betaine – 15 kg**
 - **Decyl Glucoside – 5 kg**
4. Stir for 20 minutes until completely uniform and bubble-free.

◆ PHASE B – Thickener Dispersion

5. In a side vessel, disperse:
 - **Acrylate Copolymer – 25 kg**
 - In approx. **10 kg DM water**
6. Mix until fully swollen and then add slowly to main batch under continuous stirring.
7. Stir 15 minutes until gel consistency is observed.

◆ PHASE C – Actives & Humectants

8. Now sequentially add under stirring:

- **1,3-Propane Diol – 5 kg**
- **Propanediol – 5 kg**
- **Salicylic Acid – 1 kg** (*pre-dissolve if needed*)
- **Glycolic Acid – 0.25 kg**
- **Sodium Bicarbonate – 1 kg**
- **Sodium Citrate – 1.5 kg**
- **Disodium EDTA – 0.25 kg**
- **Ethylhexylglycerin – 1.5 kg**
- **Phenoxyethanol – 1.5 kg**

◆ PHASE D – Herbal & Aesthetic Additives

9. Add to main vessel:
 - **Encapsulated Neem Extract – 5 kg** (*pre-hydrated if needed*)
 - **Boric Acid – 1 kg** (*for antiseptic function*)
 - **Perfume Neem – 1 kg**
 - **Color (Apple Green) – 0.0003 kg** (*pre-dissolve in water*)
10. Add **additional DM Water – 25 kg + 240 kg** gradually while adjusting viscosity.

◆ PHASE E – Viscosity Adjustment & pH Balance

11. Slowly add **Salt – 10 kg** in small increments while stirring.
Stir 10 minutes after each addition and observe thickness.
12. Finally, adjust pH to **5.0–6.0** using **Sodium Hydroxide 0.1% solution** (qs).
13. Stir gently for 10 more minutes and allow the batch to become bubble-free.

◆ PHASE F – Filtration & Filling

14. Filter through a **100-mesh SS filter**.
15. Fill into pre-sanitized face wash tubes or bottles.
16. Seal, label, and pack in cartons.

Packaging & Storage

- **Primary Packaging:** Flip-top bottles or tubes (100ml, 150ml)
- **Secondary Packaging:** Shrink-wrapped cartons
- **Storage Condition:** Cool, dry, away from direct sunlight
- **Shelf Life:** 24 months (under controlled conditions)

Formulation-47

Tulsi Morning Face Wash

Name	Kg	Remark
Sodium Laureth Sulphate, 70%	80.00	
Palm Kernal Di-ethanol Amide	10.00	
Cocamido Prooyl Betaine	150.00	
Decyl Glucoside	5.00	
DM Water	90	
Acrylate Copolymer	30.00	
1,3-Propane Diol	5	
Phenoxyethanol	2	
Di-Sodium EDTA	0.25	
DM Water	25	
Salt	13.00	
Propylene Glycol	5	
Salicylic Acid	1	
Sodium Bicarbonate	1	
Sodium Citrate	1.5	
Glycolic Acid	0.25	
Encapsulated Tulsi Extract	5.00	
DM Water	210	
Perfume	1.00	
	500	

 **Product Name:**

Tulsi Morning Face Wash

Batch Size: 500 Kg

Product Type: Herbal Anti-Acne Face Wash (Gel-based)

Skin Type Target: Oily to Acne-prone Skin

Main Herbal Active: Encapsulated Tulsi Extract

 Label Claims (Marketing Friendly):

-  Enriched with **Encapsulated Tulsi Extract** for natural anti-bacterial care
-  Gently exfoliates and purifies pores
-  With **Salicylic & Glycolic Acid** for acne control
-  Removes excess oil without over-drying
-  Paraben-free, Alcohol-free
-  Soothing gel texture with refreshing herbal fragrance
-  pH Balanced for daily use
-  Suitable for all skin types

 Quality Control (QC) Checklist

Test Parameter	Specification	Test Method
Appearance	Smooth, translucent light green gel	Visual Inspection
Odor	Fresh Herbal (Tulsi)	Sensory Evaluation
Color	Natural green (apple green tone)	Visual
pH (25°C)	5.0 – 6.0	Digital pH Meter
Viscosity	3000 – 7000 cps (adjusted via salt)	Brookfield Viscometer
Foam Volume	Rich, soft foam (>150 ml)	Cylinder Shake Method
Spreadability	Smooth, non-sticky	Manual Surface Test
Microbial Limit Test	<100 CFU/g, No pathogens	USP Method
Stability @ 5°C/RT/45°C	No color change, separation, or odor after 1M	Stability Chamber
Packaging Integrity	No leakage, proper seal	Visual Inspection
Label Verification	Match branding, INCI, MRP, expiry, batch no.	Manual Cross Check

 Manufacturing SOP:

Batch Size: 500 Kg

Batch No: _____

Mfg Date: _____

Production Area: Liquid/Gel Processing Unit

 Phase A – Surfactant Base Preparation

1. In a clean SS316 mixing vessel, take:

- **DM Water – 90 kg**
- 2. Begin **slow stirring (50–100 rpm)**.
- 3. Add one by one while stirring:
 - **Sodium Laureth Sulphate 70% – 80 kg**
 - **Palm Kernel Diethanolamide – 10 kg**
 - **Cocamidopropyl Betaine – 150 kg**
 - **Decyl Glucoside – 5 kg**
- 4. Continue mixing until uniform and foam is minimized (about 20 minutes).

◆ Phase B – Thickener Addition

- 5. Disperse **Acrylate Copolymer – 30 kg** in approx. **10 kg DM Water** separately. Allow swelling for 15 minutes, then slowly add into main vessel.
- 6. Stir until clear and gel-like consistency is formed (20–30 mins).

◆ Phase C – Humectants & Actives

- 7. Add the following ingredients one after another:
 - **1,3-Propane Diol – 5 kg**
 - **Propylene Glycol – 5 kg**
 - **Salicylic Acid – 1 kg** (*pre-dissolved in PG if needed*)
 - **Glycolic Acid – 0.25 kg**
 - **Sodium Bicarbonate – 1 kg**
 - **Sodium Citrate – 1.5 kg**
 - **Disodium EDTA – 0.25 kg**
 - **Phenoxyethanol – 2 kg**

◆ Phase D – Herbal Extract & Aesthetics

- 8. Add:
 - **Encapsulated Tulsi Extract – 5 kg** (*ensure even distribution*)
 - **Perfume (Tulsi or Herbal Green Note) – 1 kg**
- 9. Add **additional DM Water – 25 kg + 210 kg** gradually to make up the full weight.

◆ Phase E – Viscosity & pH Adjustment

- 10. Add **Salt – 13 kg** gradually to reach desired viscosity. Stir well after each portion.
- 11. Adjust pH to 5.5–6.0 using **citric acid or sodium hydroxide 0.1% solution (qs)**.
- 12. Mix thoroughly and allow air bubbles to settle.

◆ Phase F – Final Processing

- 13. Pass the batch through **100-mesh SS filter**.
- 14. Fill into HDPE or PET bottles (100ml/150ml/200ml).
- 15. Seal properly, apply labels, and pack into cartons.

Packaging & Storage Guidelines

- **Primary Pack:** HDPE/PET bottles with flip-top cap
- **Secondary Pack:** Shrink-wrapped printed cartons
- **Storage Condition:** Cool, dry area (15–30°C), avoid direct light
- **Shelf Life:** 24 months from Mfg. date

Formulation-48

Mixed Fruit Daily Face wash

Name	Kg	Remark
Sodium Laureth Sulohate	75.00	
Palm Karnel Di -ethanol Amide	10.00	
Cocamido Propyl Betaine	15.00	
Decyl Glucoside	5.00	
Acrylate Co Polymer	30.00	
DM water	90	
1,3-Propane Diol	5	
Phenoxy Ethanol	2.5	
Propylene Glycol	5	
Salicylic Acid	1	
Sodium Bicarbonate	1	
Sodium Citrate	1	
Di- Sodium EDTA	0.25	
DM Water	20	
Mixed Fruit Extract	10	Extract of Orange peel, Mango peel and Banana peel
Salt	12.00	
DM Water	300	
Fragrance Cool water	Qs	
Fragrance Essence of Rome	Qs	
Color Orange	Qs	
	500	

 Product Name:

Mixed Fruit Refreshing Face Wash

FB-20250629-007 (MD KHAIRUL Alam Eshad)

Batch Size: 500 Kg
Product Type: Gentle Foaming Gel Cleanser
Key Herbal Actives: Orange Peel, Mango Peel & Banana Peel Extracts
Target Users: All Skin Types, Especially Dull and Oily Skin



Label Claims (For Marketing):

- ✔ Infused with **Orange, Mango & Banana Peel Extracts** for brightening
- ✔ Refreshing "Cool Water" & "Essence of Rome" fragrance blend
- ✔ Gentle cleansing with **fruit acid complex & exfoliants**
- ✔ Deep pore cleansing with **Salicylic Acid**
- ✔ Soft gel texture, non-drying formula
- ✔ Suitable for all skin types
- ✔ Paraben-free | Alcohol-free | SLS-Free
- ✔ Dermatologically Tested
- ✔ Daily Use Formula



Quality Control Checklist (QC):

Parameter	Specification	Method
Appearance	Transparent Orange Gel	Visual
Color	Orange	Visual
Odor	Fruity-fresh with cool undertone	Sensory
pH (25°C)	5.5 – 6.0	pH Meter
Viscosity	3500 – 7000 cps	Brookfield Viscometer
Foam Test	Moderate to High Foam (>150 ml)	Cylinder Shake
Microbial Limit Test	<100 CFU/g; No pathogens	USP Microbial Testing
Stability (45°C, RT, 5°C)	No separation or color change	Stability Chamber – 30 days
Label Accuracy	Verified (batch no, mfg/exp, INCI etc.)	Manual
Packaging Integrity	Leak-proof seal, cap fit	Physical Inspection



Manufacturing SOP: Mixed Fruit Face Wash

Batch Size: 500 kg

Batch No: _____

Date: _____

Manufacturing Area: Liquid/Gel Personal Care Line

◆ PHASE A – Surfactant & Base Preparation

1. In a sanitized SS316 mixing tank, add:
 - **DM Water – 90 kg**
 2. Begin slow stirring (50–100 RPM).
 3. Sequentially add:
 - **Sodium Laureth Sulphate – 75 kg**
 - **Palm Kernel Diethanolamide – 10 kg**
 - **Cocamidopropyl Betaine – 15 kg**
 - **Decyl Glucoside – 5 kg**
 4. Mix for 20–25 minutes until homogeneous and bubble-free.
-

◆ PHASE B – Thickener Addition

5. In a separate container, disperse **Acrylate Copolymer – 30 kg** in **10 kg DM Water**, allow it to swell completely.
 6. Add this dispersion slowly into the main tank under stirring. Mix till a uniform gel base forms.
-

◆ PHASE C – Actives & Moisturizers

7. Add the following ingredients one by one:
 - **1,3-Propane Diol – 5 kg**
 - **Propylene Glycol – 5 kg**
 - **Salicylic Acid – 1 kg** (*pre-dissolve if necessary*)
 - **Sodium Bicarbonate – 1 kg**
 - **Sodium Citrate – 1 kg**
 - **Di-Sodium EDTA – 0.25 kg**
-

◆ PHASE D – Herbal Extract & Aesthetics

8. Add:
 - **Mixed Fruit Extract – 10 kg**
(*Includes Orange peel, Mango peel, Banana peel*)
 9. Add:
 - **Phenoxyethanol – 2.5 kg** (*as preservative*)
 - **Fragrance Cool Water – Q.S.**
 - **Fragrance Essence of Rome – Q.S.**
 - **Color Orange – Q.S.** (*dilute in water before adding*)
-

◆ PHASE E – Final Adjustments

10. Add additional:

- **DM Water – 20 kg + 300 kg = 320 kg** to reach desired volume.

11. Slowly add **Salt – 12 kg** in small portions to build viscosity.

Stir and allow 10–15 min after each addition.

12. Adjust final pH to **5.5–6.0** using Sodium Hydroxide or Citric Acid solution.

◆ PHASE F – Finishing

13. Allow batch to rest and release air bubbles (15–30 minutes).

14. Filter the product through **100-mesh SS filter**.

15. Fill into appropriate bottles/tubes.

16. Seal, label, and carton-pack.

Packaging & Storage:

- **Primary Packaging:** PET bottle or tube with flip-top cap
 - **Secondary Packaging:** Carton box or shrink wrap
 - **Storage Conditions:** Cool, dry area (15–30°C), away from sunlight
 - **Shelf Life:** 24 Months
-

Formulation-49

Charcoal Daily Detoxifying Face Wash

Name	Kg	Remark
DM Water	220	
Sodium Laureth Sulphate, 70%	75.00	
Palm Kernal Di -Ethanol Amide	10.00	

Cocamido Propyl Betaine	15.00	
Decyl Glucoside	5.00	
Acrylate Copolymer	30.00	
DM Water	80	
1,3-Propane Diol	10.00	
Polyethylene Glycol-400	5	
Titanium Di Oxide	2.00	
Boric Acid	1	
Charcoal Powder	5.00	
Phenoxy Ethanol	1.50	
Di-Sodium EDTA	0.25	
Salt	13.00	
DM Water	25	
Perfume	Qs	
Total	50	



Product Name:

Charcoal Daily Detoxifying Face Wash

Batch Size: 500 kg

Product Type: Deep Cleansing Gel Face Wash

Target Users: Oily, acne-prone, and polluted skin

Hero Ingredients: Activated Charcoal, Titanium Dioxide, Propanediol



Label Claims (Marketing & Packaging):

- ✔ **Activated Charcoal** to absorb dirt, excess oil, and toxins
- ✔ With **Titanium Dioxide** for skin brightness and tone balance
- ✔ Daily use, non-drying, and gentle exfoliating action
- ✔ Helps clear blackheads and minimize pores
- ✔ Refreshing feel with cooling perfume blend
- ✔ Paraben-free | Alcohol-free | Cruelty-free
- ✔ Unisex, suitable for all skin types



Quality Control (QC) Checklist

Parameter	Specification	Method
Appearance	Black to greyish translucent gel	Visual
Odor	Fresh, detox-inspired (Cool/Charcoal note)	Sensory

Parameter	Specification	Method
pH (25°C)	5.5 – 6.5	pH Meter
Viscosity	3000–6000 cps	Brookfield Viscometer
Spreadability	Smooth, easily rinsed	Manual
Microbial Limit	<100 CFU/g; Pathogen free	USP Standard
Foam Volume	Medium-high, soft foam	Cylinder Shake Method
Stability Test	No separation/color/odor change (RT/45°C/5°C)	1-month accelerated
Label Check	All data correct: INCI, batch, expiry, etc.	Manual Cross-check



Manufacturing SOP: Charcoal Detox Face Wash

Batch No: _____

Manufacture Date: _____

Manufacturing Area: Personal Care Gel Line

Total Batch Size: 500 kg

◆ PHASE A – Base Surfactant Preparation

1. In a clean SS316 mixing vessel, add:
 - **DM Water – 220 kg**
2. Start slow stirring (50–100 RPM).
3. Add one by one:
 - **Sodium Laureth Sulphate 70% – 75 kg**
 - **Palm Kernel Diethanolamide – 10 kg**
 - **Cocamidopropyl Betaine – 15 kg**
 - **Decyl Glucoside – 5 kg**
4. Stir gently until foam subsides and mixture is uniform (~20 min).

◆ PHASE B – Thickener Dispersion

5. In a side vessel, disperse:
 - **Acrylate Copolymer – 30 kg**
 - **In 80 kg DM Water**
6. Mix until fully hydrated and swollen (10–15 minutes).
7. Add the dispersion into the main tank under slow stirring.

◆ PHASE C – Active Ingredients & Humectants

8. Slowly add the following:
 - **1,3-Propane Diol – 10 kg** (*for moisturization*)
 - **Polyethylene Glycol-400 – 5 kg** (*humectant & solvent*)

- **Titanium Dioxide – 2 kg** (*dispersion or slurry form if needed*)
- **Boric Acid – 1 kg** (*mild antiseptic*)
- **Activated Charcoal Powder – 5 kg** (*sifted, cosmetic grade*)
- **Phenoxyethanol – 1.5 kg** (*preservative*)
- **Disodium EDTA – 0.25 kg**

◆ PHASE D – Viscosity & Final Adjustments

9. Add **Salt – 13 kg** slowly while observing viscosity.
Wait 10 minutes after each portion before continuing.
10. Add **DM Water – 25 kg** to adjust final batch weight.
11. Add **Perfume – Q.S.** (Cool, Fresh, or Detox blend)
12. Mix for 10 minutes. Adjust pH if necessary (target: **5.8–6.2**).

◆ PHASE E – Filtration & Filling

13. Let the batch rest for 20–30 mins to allow bubbles to settle.
14. Pass through **100-mesh SS filter**.
15. Fill into pre-cleaned HDPE/PET bottles or tubes.
16. Seal, label, and pack.

Packaging & Storage

- **Primary Packaging:** Black/dark grey tube or bottle (100ml/150ml)
 - **Secondary Packaging:** Carton/shrink-wrap with branding
 - **Storage:** Cool, dry place (15–30°C), avoid sunlight
 - **Shelf Life:** 24 months
-

Formulation-50

Advance Deep Hydra Boost and Brightening Body lotion

Name	%	Remark
Phase A		
DM Water	65	
Allantoin	0.25	
Di-Sodium EDTA	0.10	
RM-2051	0.50	
1,3-Propane Diol	2.00	
Glycerine	2.00	
Phase B		
Ceteareth -20	1.00	
Ginol -6820	1.50	
Polysorbate-80	0.10	
Argan oil	0.1	
Jojoba oil	0.1	
Cetyl Alcohol	2	
Cetostearyl Alcohol	3	
Caprylic Capric Triglyceride	5.00	
Phase C		
Cocoa Butter	0.10	
Isopropyl Myristate	3.50	

All-rac- Alpha Tocooheryl Acetate	0.25	
DC 200	3.00	
Dc 245	1.50	
D-Psnthenol	0.25	
Phase D		
Carbopol Ultrez-20	0.05	
Sodium Hyaluronate	0.1	
Niacinamide	2.00	
DM Water	5	
Magnessium Ascorbyl Glucoside	1	
Glutathione	1	
Phase E		
Fragrance wood sage & Sea salt	Qs	
Phase F		
Phenoxyethanol	0.5	
Ethyl Hexyl Glycerine	0.4	
Aloe barbadensis leaf extract	0.02	
Licorice Root extract	0.02	
Camelia sinensis extract	0.02	
Phase G		
Limonene	0.01	

Linalool	0.01	
Hexyl Cinnamel	0.01	
Total	100.00	

 Product Name:

Advance Deep Hydra Boost & Brightening Body Lotion

Batch Size: Customizable (100 kg, 200 kg, 500 kg, etc.)

Product Type: Emulsion-based Body Lotion

Target Users: All skin types (especially dry, dull or uneven-toned skin)

Hero Actives: Niacinamide, Sodium Hyaluronate, Glutathione, Argan Oil, Vitamin E

 Label Claims (Marketing Friendly):

- ✔ **24-Hour Intense Hydration** with Sodium Hyaluronate
- ✔ **Brightening Complex:** Niacinamide + Glutathione + Vitamin C derivative
- ✔ **Lightweight, non-greasy formula** for all seasons
- ✔ Infused with **Aloe, Green Tea, and Licorice Extracts**
- ✔ Repairs dry, damaged, or pigmented skin
- ✔ **Dermatologically tested** | Paraben Free | Alcohol Free
- ✔ Refreshing aroma of **Wood Sage & Sea Salt**

 Quality Control (QC) Checklist

Parameter	Specification	Method
Appearance	Off-white to cream lotion, smooth texture	Visual
Fragrance	Mild woody-marine (Wood Sage & Sea Salt)	Sensory
pH (25°C)	5.5 – 6.5	pH Meter
Viscosity	10,000 – 20,000 cps (depending on phase ratio)	Brookfield Viscometer
Spreadability	Smooth, fast absorbing, non-greasy	Manual
Microbial Limit	<100 CFU/g; no pathogens	ISO 17516
Emulsion Stability	Stable for 30 days at 5°C, RT, and 45°C	Stability Chamber
Packaging Integrity	Leak-proof, no discoloration or contamination	Physical Check



Manufacturing SOP: Hydra Boost Brightening Body Lotion

Batch No: _____

Date: _____

Batch Size: 100/200/500 Kg

Mfg Area: Cosmetic Cream/Lotion Line

Equipment Needed: SS316 reactor with homogenizer, heating & cooling jacket, inline filter, pH meter, viscosity meter.

◆ Phase A – Aqueous Phase

1. Into main jacketed vessel, add:
 - **DM Water – 65%**
2. Begin heating to 70–75°C with continuous stirring (100–200 rpm).
3. Add sequentially:
 - **Allantoin – 0.25%**
 - **Disodium EDTA – 0.10%**
 - **RM-2051 – 0.50% (moisturizing agent)**
 - **1,3-Propane Diol – 2.00%**
 - **Glycerine – 2.00%**

◆ Phase B – Oil Phase (Separate Vessel)

4. Heat separately to 70–75°C:
 - **Cetareth-20 – 1.00%**
 - **Ginol-6820 – 1.50% (fatty ester)**
 - **Polysorbate-80 – 0.10%**
 - **Argan Oil – 0.10%**
 - **Jobba Oil – 0.10%**
 - **Cetyl Alcohol – 2.00%**
 - **Cetostearyl Alcohol – 3.00%**
 - **Caprylic/Capric Triglyceride – 5.00%**
5. Ensure complete melting and uniformity.

◆ Phase C – Fat-soluble Actives

6. Add into oil phase (cooled to 60°C):
 - **Cocoa Butter – 0.10%**
 - **Isopropyl Myristate – 3.50%**
 - **Vitamin E Acetate – 0.25%**
 - **Dimethicone DC 200 – 3.00%**
 - **Dimethicone DC 245 – 1.50%**
 - **D-Panthenol – 0.25%**

◆ Emulsification Step

7. Slowly add oil phase (Phase B + C) to aqueous phase (Phase A) under **high shear homogenization (1500–2500 rpm)**.
 8. Maintain temperature at 65°C during emulsification for 10–15 mins.
 9. Homogenize until thick white lotion forms.
-

◆ Phase D – Cooling & Water-Soluble Actives

10. Start cooling to below 40°C.
 11. In a separate container, mix and add:
 - **Carbopol Ultrez-20 – 0.05% (*pre-dispersed*)**
 - **Sodium Hyaluronate – 0.10% (*hydration*)**
 - **Niacinamide – 2.00%**
 - **Magnesium Ascorbyl Glucoside – 1.00%**
 - **Glutathione – 1.00%**
 - **DM Water – 5%**
-

◆ Phase E – Fragrance

12. Add **Fragrance (Wood Sage & Sea Salt) – Q.S.**
Stir gently to avoid air entrapment.
-

◆ Phase F – Preservation & Extracts

13. Add:
 - **Phenoxyethanol – 0.5%**
 - **Ethylhexylglycerin – 0.4%**
 - **Aloe Vera Leaf Extract – 0.02%**
 - **Licorice Root Extract – 0.02%**
 - **Camellia Sinensis (Green Tea) Extract – 0.02%**
-

◆ Phase G – IFRA Allergen Declaration

14. Add:
 - **Limonene – 0.01%**
 - **Linalool – 0.01%**

- **Hexyl Cinnamal – 0.01%**
-

Final Adjustments

15. Check and adjust pH to 5.5–6.0 if needed.
 16. Filter through 100 mesh.
 17. Fill into bottles/pumps/jars.
 18. Label, seal, pack and send for QC before release.
-

Packaging & Storage

- **Primary Packaging:** HDPE/Luxury Pump Bottle, 100ml–500ml
 - **Secondary:** Unit box/carton
 - **Storage:** Cool, dry place (15–30°C)
 - **Shelf Life:** 24 months
 - **Best Time to Use:** Within 12 months of opening
-

Ingredient Sources

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5.Green International

Contact: 01713082115(Agent DOW chemical)

6.Injeneous Corporation

Lalmatia, mohammadpur, Dhaka

Contact: 0 1810-103813

7.Laby shop. Com

Contact: 01898-760021

8.UCF Bangladesh

Shah Makhdum Ave, Dhaka 1230

Contact: 01402923177